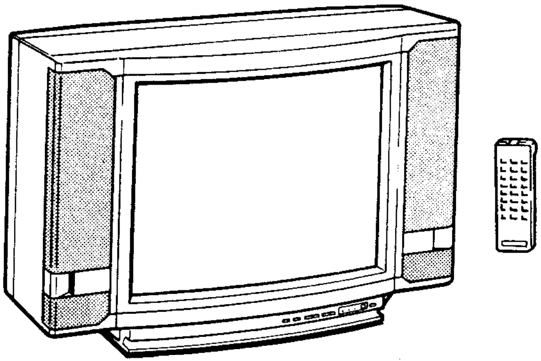
KV-27HSR10
RM-763

SERVICE MANUAL

US Model
Chassis No. SCC-C59C-A

Canadian Model
Chassis No. SCC-C60C-A



ANU-1 CHASSIS

Note: The service manual for RM-763 has been issued separately.

MODELS OF THE SAME SERIES	
KV-27XBR55	KV-32HSR10
KV-27XBR10/27XBR60	
KV-32XBR10/32XBR70	

SPECIFICATIONS

Television system	American TV standards
Channel coverage	VHF: 2–13 UHF: 14–69 Cable TV: 1–125
Picture tube	Microblack Trinitron tube 27-inch picture measured diagonally 29-inch picture tube measured diagonally
Antenna	75-ohm external antenna terminal for VHF/UHF
Input	VIDEO 1, 2 and 3 IN S VIDEO IN (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75-ohms Video (phono jacks): 1 Vp-p. 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 47 kilohms
output	MONITOR OUTPUT S VIDEO OUTPUT (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal) 75-ohms Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 10 kilohms AUDIO OUTPUT (VARIABLE) (phono jacks) More than 408 mVrms at the maximum volume setting (variable) Impedance: 5 kilohms
Power requirements	120V AC, 60Hz
Power consumption	225W (max.) 1.5W (in standby condition)
Accessories supplied	Remote Commander RM-763 with 4 size AA (R6) bateries (1) Antenna connector (1)
Optional **accessories**	U N mixer EAC-66 Connecting cable VMC-810/820S YC-15V/30V Video rack SU-235X (with super-woofer) SU-235X (with super-woofer) SU-251 (black) SU-330 (black)

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR TV

SONY®

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WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

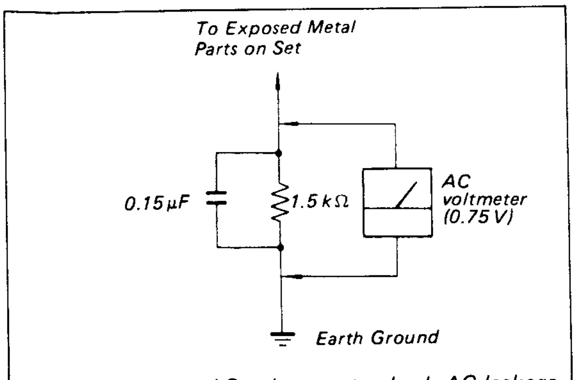


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

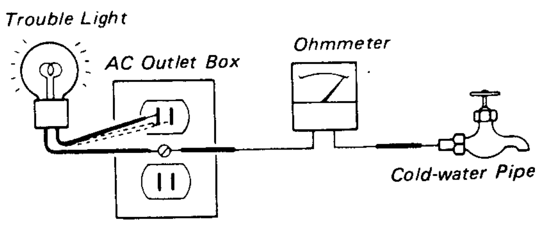
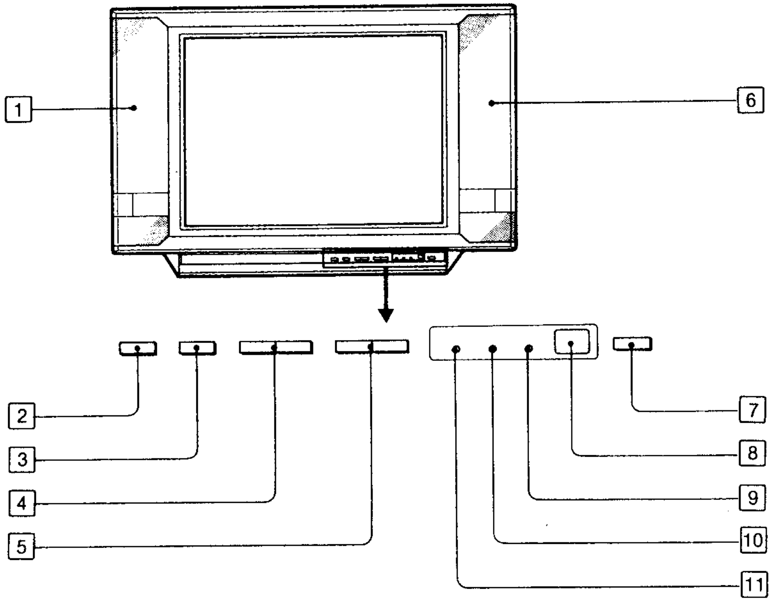


Fig. B. Checking for earth ground.

SECTION 1
GENERAL

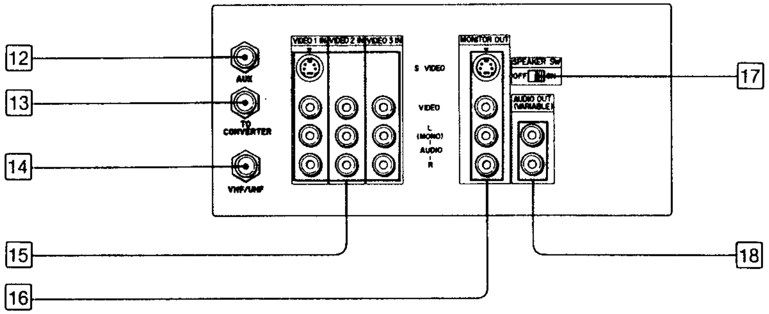
1-1. LOCATION OF CONTROLS

Front panel


1
2
3
4
5
6
7
8
9
10
11

- 1 Left speaker (tweeter and woofer)
- 2 (●) SRS (Sound Retrieval System) button
- 3 TV/VIDEO button
- 4 VOLUME buttons
- 5 CHANNEL buttons
- 6 Right speaker (tweeter and woofer)
- 7 POWER switch
- 8 Remote sensor
- 9 SLEEP indicator
- 10 STEREO indicator
- 11 TIMER indicator

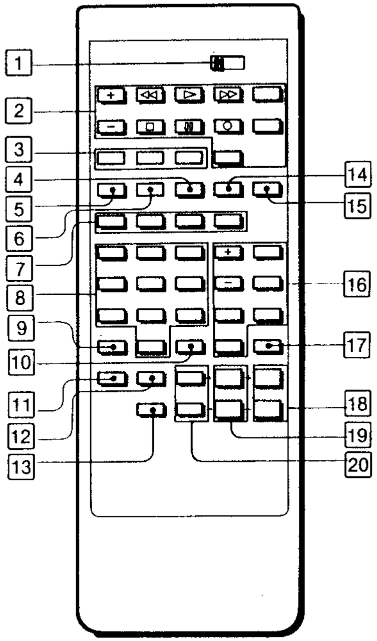
Rear panel


12
13
14
15
16
17
18
AUX
TO CONVERTER
VHF/UHF
VIDEO 1 IN
VIDEO 2 IN
VIDEO 3 IN
S VIDEO
VIDEO
L (MONO)
AUDIO
R
MONITOR OUT
SPEAKER SW
OFF
ON
AUDIO OUT (VARIABLE)

- 12 AUX (auxiliary) terminal
- 13 TO CONVERTER terminal
- 14 VHF/UHF antenna terminal
- 15 VIDEO 1, 2, 3 IN jacks (phono jacks)
- 16 MONITOR OUT jacks (phono jacks)
- 17 SPEAKER SW (switch)
- 18 AUDIO OUT (VARIABLE) jacks (phono jacks)

Remote Commander RM-763

The buttons with ∗ mark have the same function as the buttons with the same or similar mark on the TV.



1 **VTR 1/2/3/MDP (multi disc player) selector**

2 **Sony VCR/multi disc player operation buttons**

3 **Channel presetting buttons**

4 **ANT/AUX (antenna/auxiliary) button**

5 **MUTING button**

6 **CABLE button**

7 **Input select buttons (TV, VIDEO 1, VIDEO 2, VIDEO 3)***

8 **Channel number buttons**

9 **DISPLAY button**

10 **ENTER button**

11 **TIME button**

12 **MTS (multichannel TV sound) button**

13 **SRS (sound retrieval system) button***

14 **SLEEP button**

15 **POWER button***

16 **A/V WINDOW (audio and video adjusting) buttons**

17 **JUMP button**

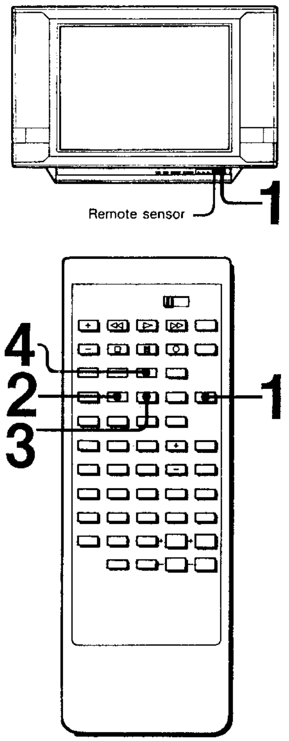
18 **CH (channel) scan buttons***

19 **VOL (volume) control buttons***

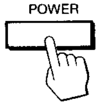
20 **PICTURE buttons**

1-2. PRESETTING TV CHANNELS

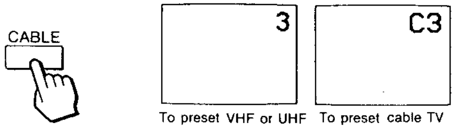
To Preset All Receivable Channels Automatically



1 **Press POWER on the TV or the Remote Commander to turn the TV on.**



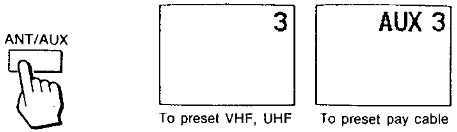
2 **Press CABLE so that the appropriate mode appears.**



To preset VHF or UHF channels

To preset cable TV channels

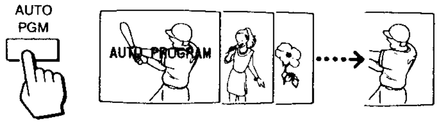
3 **Press ANT/AUX according to the channel to be preset.**



To preset VHF, UHF or regular cable TV channels

To preset pay cable TV channels

4 **Press AUTO PGM.**



"AUTO PROGRAM" is displayed on the screen and receivable channels (other than the channels already preset) will be preset in numerical sequence. The channels previously preset remain in the unit's memory.
When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

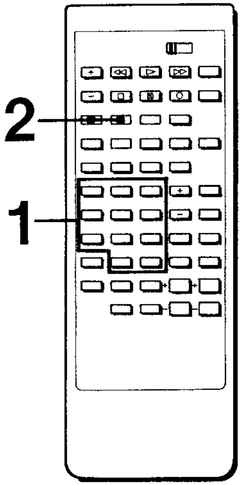
Receivable channels of this TV are:
VHF: 2-13
UHF: 14-69
Cable: 1-125

To add the channels that could not be preset with automatic programming because their signal strength was too weak, or **to erase unnecessary channels.**
Follow the steps in "To preset only the desired channels or to erase unnecessary channels" on the next page.

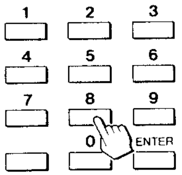
To check preset channels
Press CH +/–.

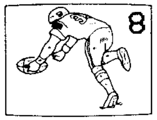
If the indication "VIDEO 1, VIDEO 2, VIDEO 3" is displayed on the screen
Press the TV/VIDEO button on the TV or the TV button on the Remote Commander so that a channel number appears.

To Preset Only the Desired Channel or to Erase Unnecessary Channels

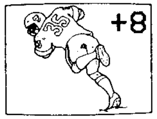


1 Press the channel number button(s) and then ENTER to select the channel to be added or erased.



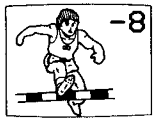


2 To add channels — Press ADD.



A "+" appears for a moment.
This channel has now been added to the channel scan memory.

To erase channels — Press ERASE.



A "–" appears for a moment.
This channel has now been erased from the channel scan memory.
The next time the CH +/– button is pressed, this channel will be skipped.

Repeat steps 1 and 2 for other channels to be added or erased.

When a VHF or UHF channel is erased
The cable TV channel with the same number is also erased and vice versa.

Cable TV channel chart*
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

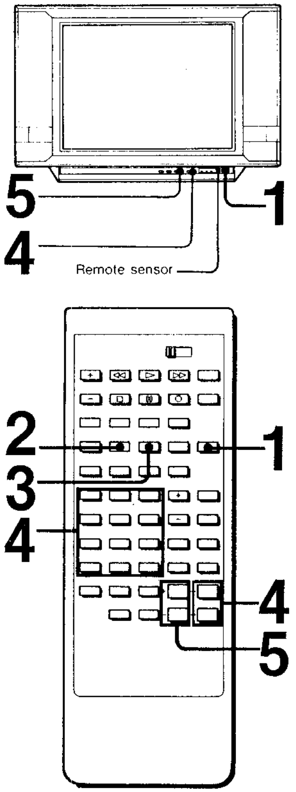
Number on this TV	1	5	6	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Corresponding CATV channel	A–8	A–7	A–6	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	....	93	94	95	96	97	98	99	100	101	102	....	123	124	125
R	S	T	U	V	W	W+1	W+2	W+3	....	W+57	W+58	A–5	A–4	A–3	A–2	A–1	W+59	W+60	W+61	....	W+82	W+83	W+84

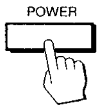
Check with your local cable TV company for more complete information on the available channels.

*The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

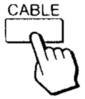
1-3. WATCHING TV PROGRAMS

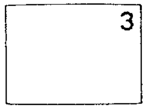


1 Press POWER on the TV or the Remote Commander to turn the TV on.

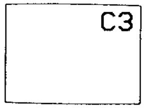


2 Press CABLE so that the appropriate mode appears.



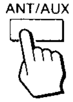


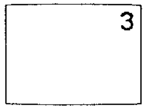
To view VHF or UHF channels



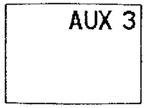
To view cable TV channels

3 Press ANT/AUX according to the channel to be watched.





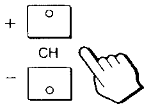
To view VHF, UHF or regular cable TV channels



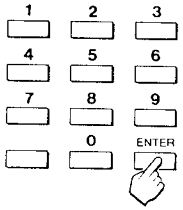
To view pay cable TV channels

4 Select a channel in one of the following two ways:

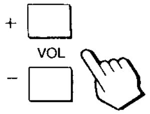
To scan the preset channels in numerical sequence, press CH +/–.



To select a channel directly, press the channel number button(s) and then ENTER.
For example, to select channel 10, press 1,0 and ENTER.



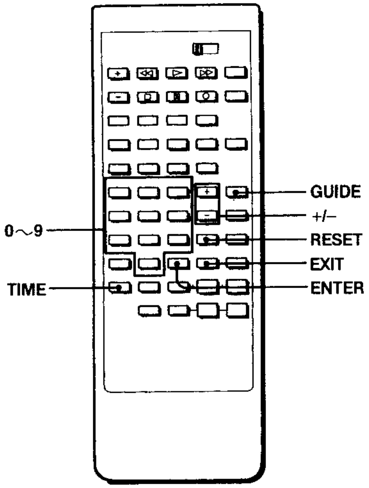
5 Press VOL + or – to adjust the volume.



1-4. USING THE GUIDE FUNCTION

The GUIDE function calls up the on-screen menu and instructions on how to set the current time, timer, channel block.

Buttons used for GUIDE function

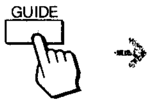


- All setting will be erased from the unit's memory if the unit is unplugged, or if a power failure occurs.
- The ON/OFF TIMER and CHANNEL BLOCK will operate only if the clock is set correctly.

Setting the Clock

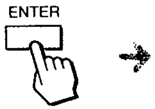
Example: To set the clock to 5:30 PM, Monday.

1 **Press GUIDE.**
Press repeatedly until "CURRENT TIME SET" turns red.



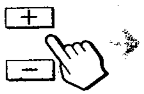
```
GUIDE

CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
```

2 **Press ENTER.**



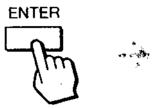
```
CURRENT TIME SET

SUN __:__ AM

SELECT TODAY'S
DAY.
PLEASE USE[+] [-]
&[ENTER].
```

3 **Press +/– until the desired day of the week appears.**



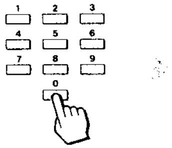
```
CURRENT TIME SET

MON __:__ AM

SELECT TODAY'S
DAY.
PLEASE USE[+] [-]
&[ENTER].
```

4 **Press ENTER.**
If the time is already set, the current set time will appear. To clear these numbers, press any number.



```
CURRENT TIME SET

MON __:__ AM

SET THE CURRENT
TIME.
PLEASE USE [0-9]
&[ENTER].
```

5 **Press 0–9 to set the desired time.**
(For 5:30, press 0,5,3,0)

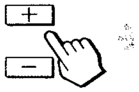


```
CURRENT TIME SET

MON 05:30 AM

SET THE CURRENT
TIME.
PLEASE USE [0-9]
&[ENTER].
```

6 **Press ENTER.**

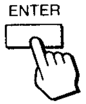
```
CURRENT TIME SET

MON 05:30 AM

SELECT AM OR PM.
PLEASE USE[+] [-]
&[ENTER].
```

7 **Press +/– to set AM or PM.**



```
CURRENT TIME SET

 MON _5:30 PM

SELECT AM OR PM.
PLEASE USE[+][-]
&[ENTER].
```

8 **Press ENTER.**
The moment ENTER is pressed, the clock will start.
Now, the clock is set. The indication will disappear after approx. 5 seconds.



```
CURRENT TIME SET

 MON _5:30 PM

CURRENT TIME IS
SET. THANK YOU.
```

To restore the normal picture
Press EXIT.

To clear the current time setting
Display the "CURRENT TIME SET" page and press RESET, then EXIT.

To reset the setting
Display the "CURRENT TIME SET" page and press RESET, then repeat steops 3 to 8.

To display the current time
Press TIME.

Notes

- The internal clock of this TV operates on a 12-hour cycle. If a 24-hour cycle number is entered, it will be cleared when ENTER is pressed.

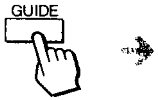
12:00 AM stands for midnight.
12:00 PM stands for noon.

Setting the ON/OFF Timer

ON/OFF TIMER allows the program of your choice to appear on the screen at the desired time.

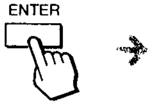
Example: Set the timer to turn on the TV to channel 8 at 1:00 PM for 3 hours every Monday through Friday.

1 **Press GUIDE.**
Press repeatedly until "ON/OFF TIMER" turns red.



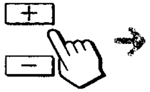
```
GUIDE

CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
```

2 **Press ENTER.**
If the clock has not been set, "PLEASE SET CURRENT TIME FIRST" appears on the screen.
Go back to page 26.



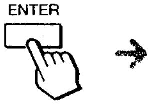
```
ON/OFF TIMER
EVERY SUN-SAT
__:__ AM _H CH___
SELECT THE DAY.
PLEASE USE[+][-]
&[ENTER].
```

3 **Press +/– until the desired day of the week appears.**



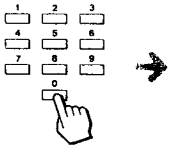
```
ON/OFF TIMER
EVERY MON-FRI
__:__ AM _H CH___
SELECT THE DAY.
PLEASE USE[+][-]
&[ENTER].
```

4 **Press ENTER.**



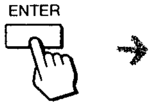
```
ON/OFF TIMER
EVERY MON-FRI
__:__ AM _H CH___
SET THE TIME.
PLEASE USE [0-9]
& [ENTER].
```

5 **Press 0–9 to set the desired time.**
(For 1:00, press 0,1,0,0.)



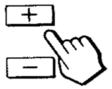
```
ON/OFF TIMER
EVERY MON-FRI
01:00 AM _H CH___
SET THE TIME.
PLEASE USE [0-9]
& [ENTER].
```

6 **Press ENTER.**



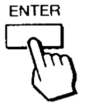
```
ON/OFF TIMER
EVERY MON-FRI
01:00 AM _H CH___
SELECT AM OR PM.
PLEASE USE[+][-]
& [ENTER].
```

7 **Press +/– to set AM or PM.**



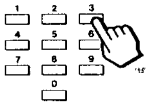
```
ON/OFF TIMER
EVERY MON-FRI
01:00 PM _H CH___
SELECT AM OR PM.
PLEASE USE[+][-]
& [ENTER].
```

8 **Press ENTER.**



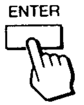
```
ON/OFF TIMER
EVERY MON-FRI
01:00 PM _H CH___
SET THE DURATION.
PLEASE USE [0-9]
& [ENTER].
```

9 **Press a number button to set the duration.**
(Up to 9 hours can be set).



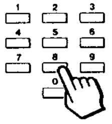
```
ON/OFF TIMER
EVERY MON-FRI
01:00 PM 3H CH___
SET THE DURATION.
PLEASE USE [0-9]
& [ENTER].
```

10 **Press ENTER.**



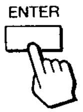
```
ON/OFF TIMER
EVERY MON-FRI
01:00 PM 3H CH___
SET THE CHANNEL
PLEASE USE [0-9]
& [ENTER].
```

11 **Press 0–9 to set the desired channel number.**



```
ON/OFF TIMER
EVERY MON-FRI
01:00 PM 3H CH_8
SET THE CHANNEL
PLEASE USE [0-9]
& [ENTER].
```

12 **Press ENTER.**
Now ON/OFF timer is set.
The TIMER indicator on the TV lights up.



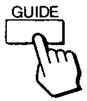
```
ON/OFF TIMER
EVERY MON-FRI
_1:00 PM 3H CH_8
ON/OFF TIMER IS
SET. THANK YOU.
```

Setting the Channel Block

CHANNEL BLOCK prevents a channel from appearing on the screen for preset hours. We suggest you use this function to prevent children from watching undersirable programs.

Example: Set the CHANNEL BLOCK at 4:00 PM (for 1 hour), every Saturday, at channel 12.

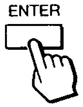
1 **Press GUIDE.**
Press repeatedly until "CHANNEL BLOCK" turns red.



```
GUIDE
CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
```

Step **2–11**: Same as Setting the ON/OFF Timer.
(See page 28.)

12 **Press ENTER.**
Now CHANNEL BLOCK is set.
At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted. A red "BLOCKED" indication will appear on the screen while the channel is blocked.



```
CHANNEL BLOCK
EVERY SATURDAY
 4:00 PM 2H CH_12
CHANNEL BLOCK IS
SET. THANK YOU.
```

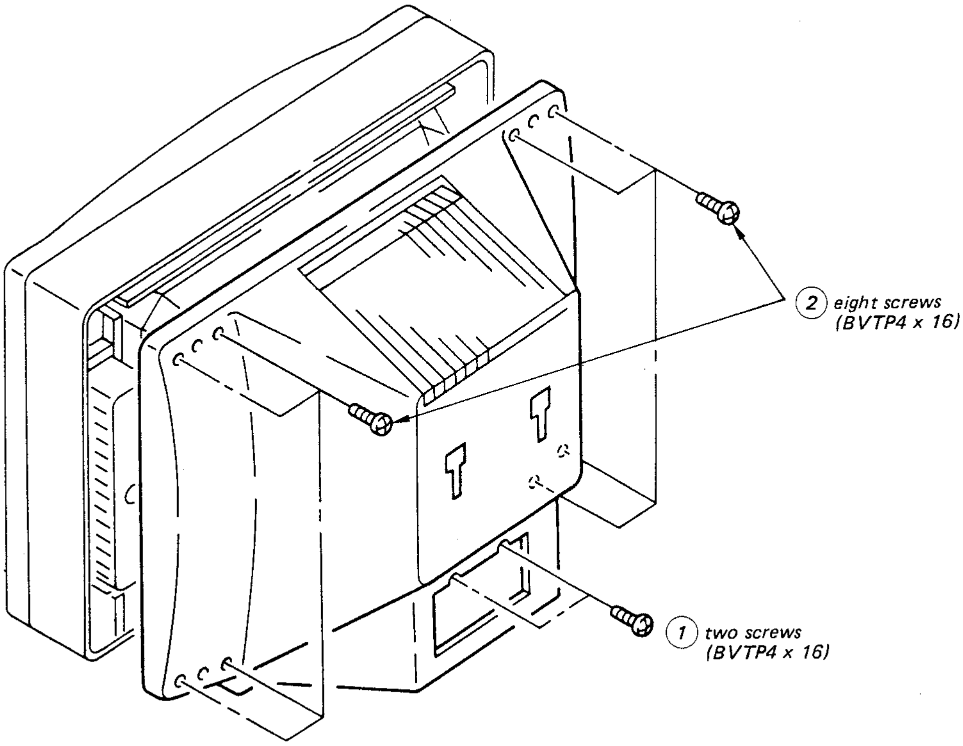
To restore the normal picture
Press EXIT.

To clear the setting
Display the "CHANNEL BLOCK" page and press RESET, then EXIT.

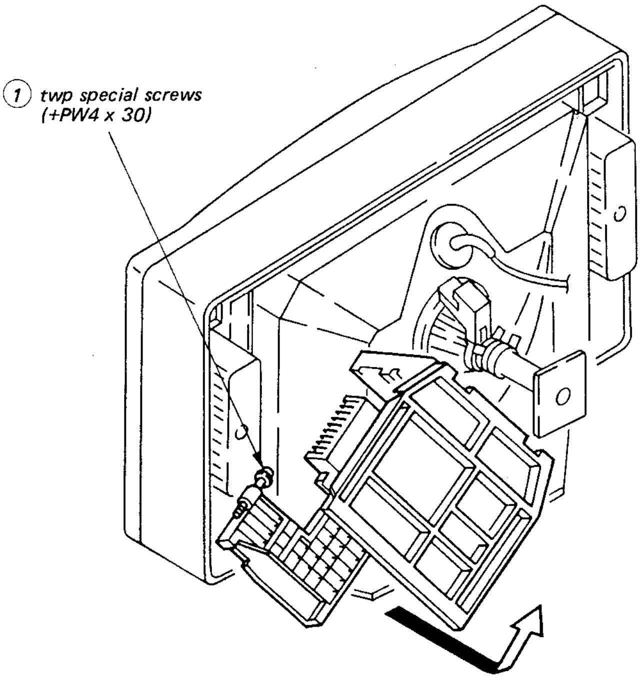
To reset the setting
Display the "CHANNEL BLOCK" page and repeat steps from the beginning.

SECTION 2
DISASSEMBLY

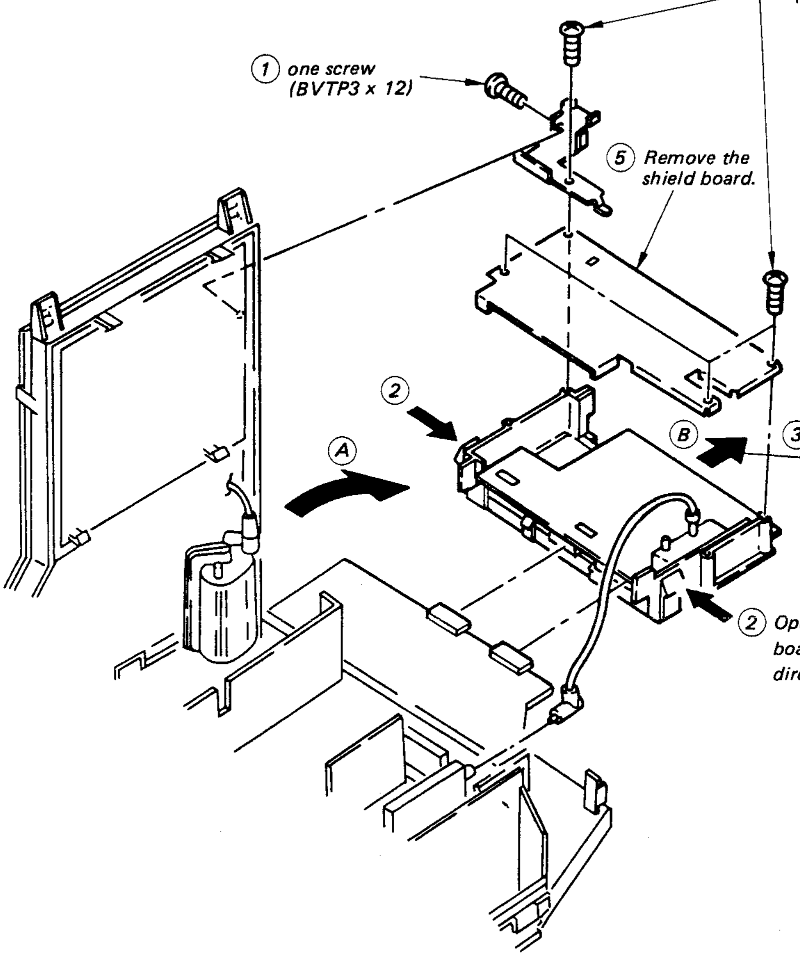
2-1. REAR COVER REMOVAL


② eight screws
(BVTP4 x 16)
① two screws
(BVTP4 x 16)

2-2. SERVICE POSITION


① twp special screws
(+PW4 x 30)

2-3. U BOARD REMOVAL



④ *four screws (BVTP3 x 12)*

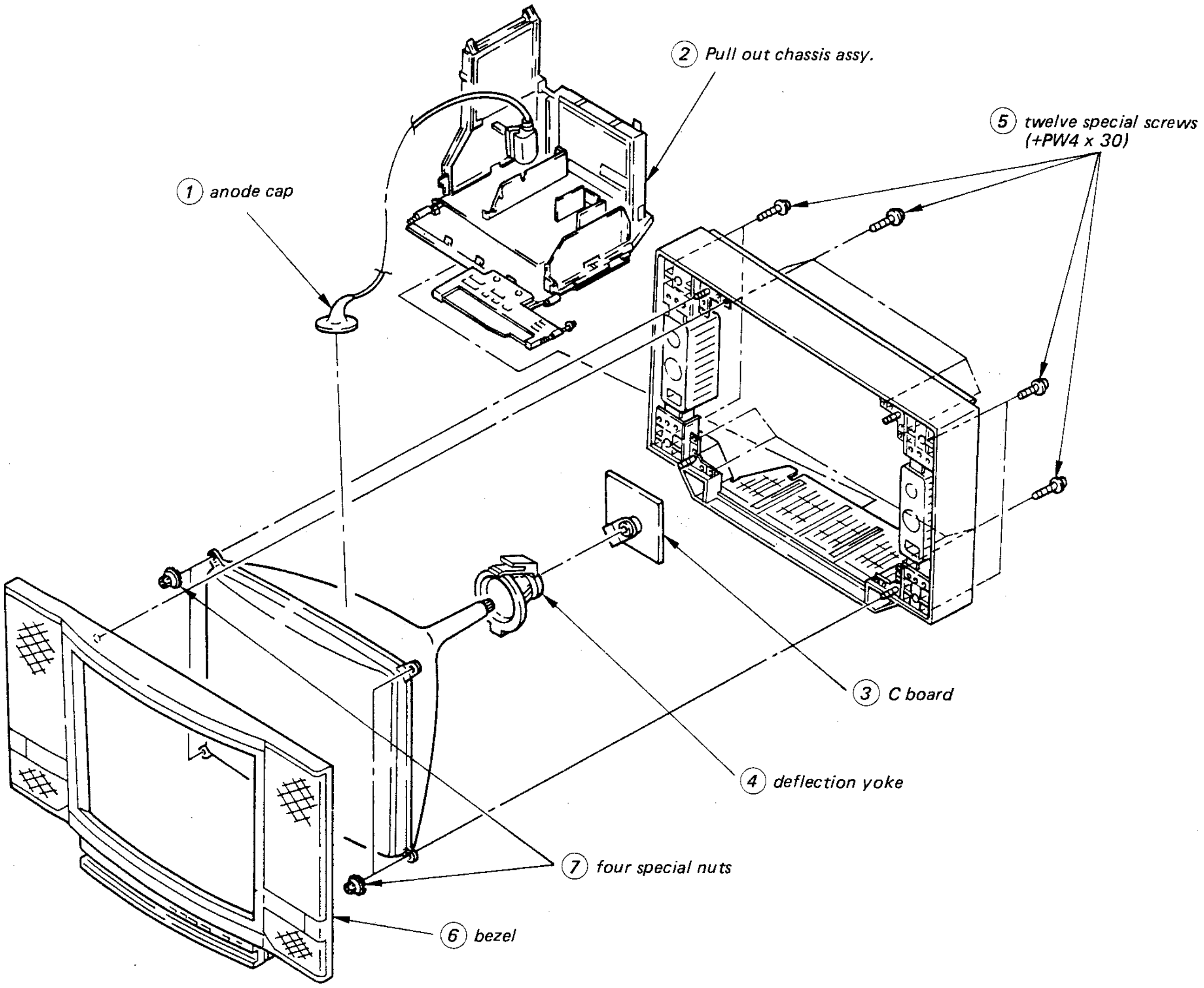
① *one screw (BVTP3 x 12)*

⑤ *Remove the shield board.*

③ *Remove the U board in the arrow Ⓑ direction.*
(Caution: Ⓐ Yellow connector is plastic hinge.)

② *Open U board with terminal board in the arrow Ⓐ direction while push two claws.*

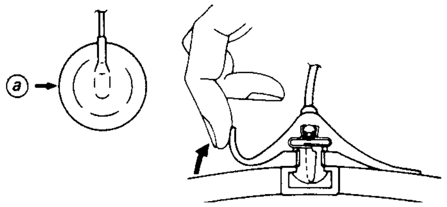
2-4. PICTURE TUBE REMOVAL


② Pull out chassis assy.
⑤ twelve special screws (+PW4 x 30)
① anode cap
③ C board
④ deflection yoke
⑦ four special nuts
⑥ bezel

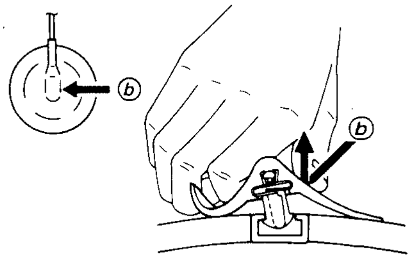
2-5. REMOVAL OF ANODE CAP

ANODE CAP REMOVAL

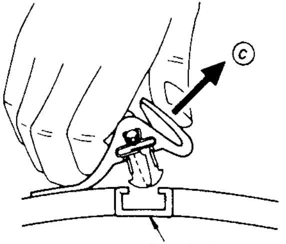
- **Removing Procedures**



① *Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.*



② *Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.*


ⓒ
Anode button

③ *When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.*

SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

PICTURE control ··············· normal
BRIGHTNESS control ········ normal

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter

Preparation :

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3−1. BEAM LANDING

1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig. 2.
3. Turn the raster signal of the pattern generator to red.
4. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3.)
5. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 1.)
6. Switch over the raster signal to blue and green and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
8. When landing at the corners is not right, adjust by using the magnet. (Fig. 4.)

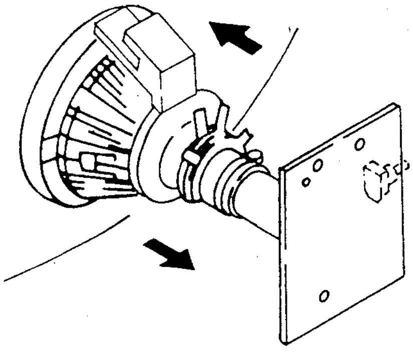


Fig. 1.

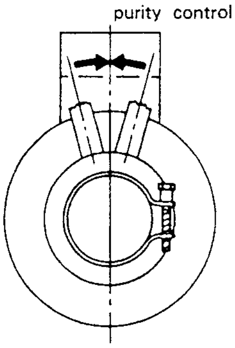

purity control

Fig. 2.

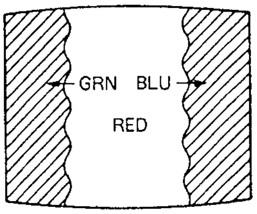


Fig. 3.

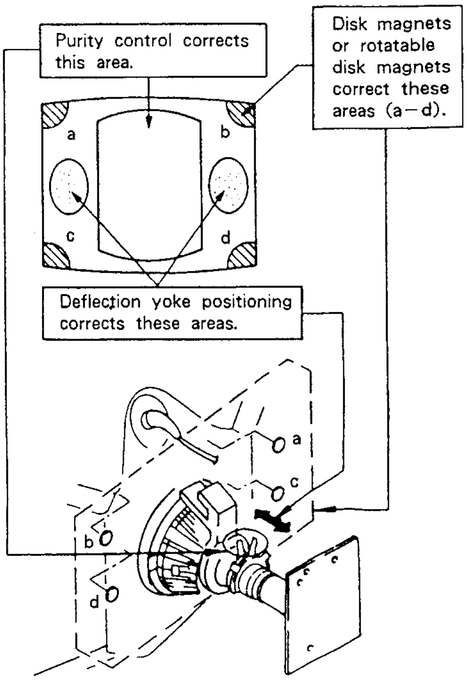

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a−d).
a
b
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d

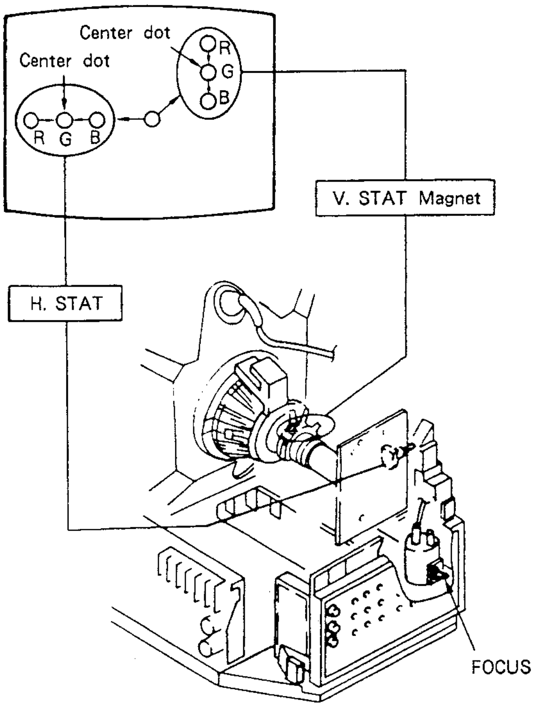
Fig. 4.

3-2. CONVERGENCE

Preparation :

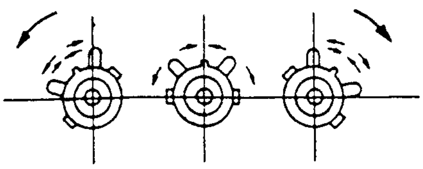
- Before starting, perform FOCUS, H. SIZE, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence



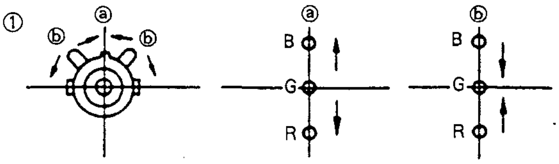
1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)

- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.

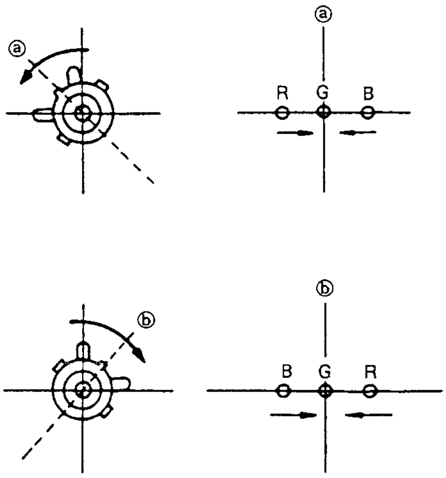


4. When the V. STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.

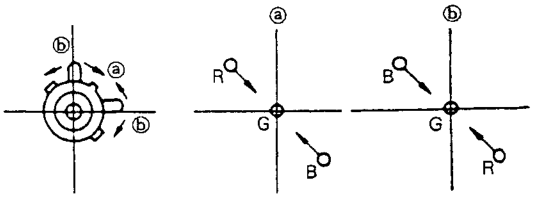
①



②



③

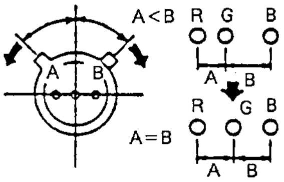


If the blue dot do not coincide with red and green dots, perform following steps.

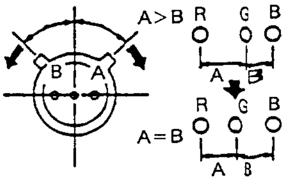
- **HMC and VMC correction for BMC (Hexapole) Magnet**

1. HMC (Horizontal, Mis, convergence) correction and motion of the Electron Beam with the BMC Magnet.

HMC correction (A)

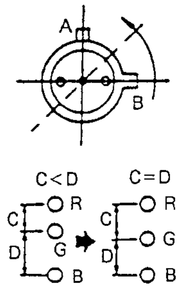


HMC correction (B)

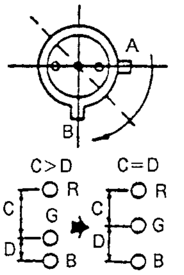


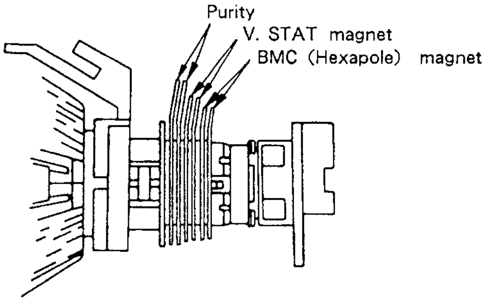
2. VMC (Vertical, Mis, convergence) correction and motion of the Electron Beam with the BMC Magnet.

VMC correction (A)


A
B
C<D
C=D
C
D
R
G
B

VMC correction (B)


A
B
C>D
C=D
C
D
R
G
B

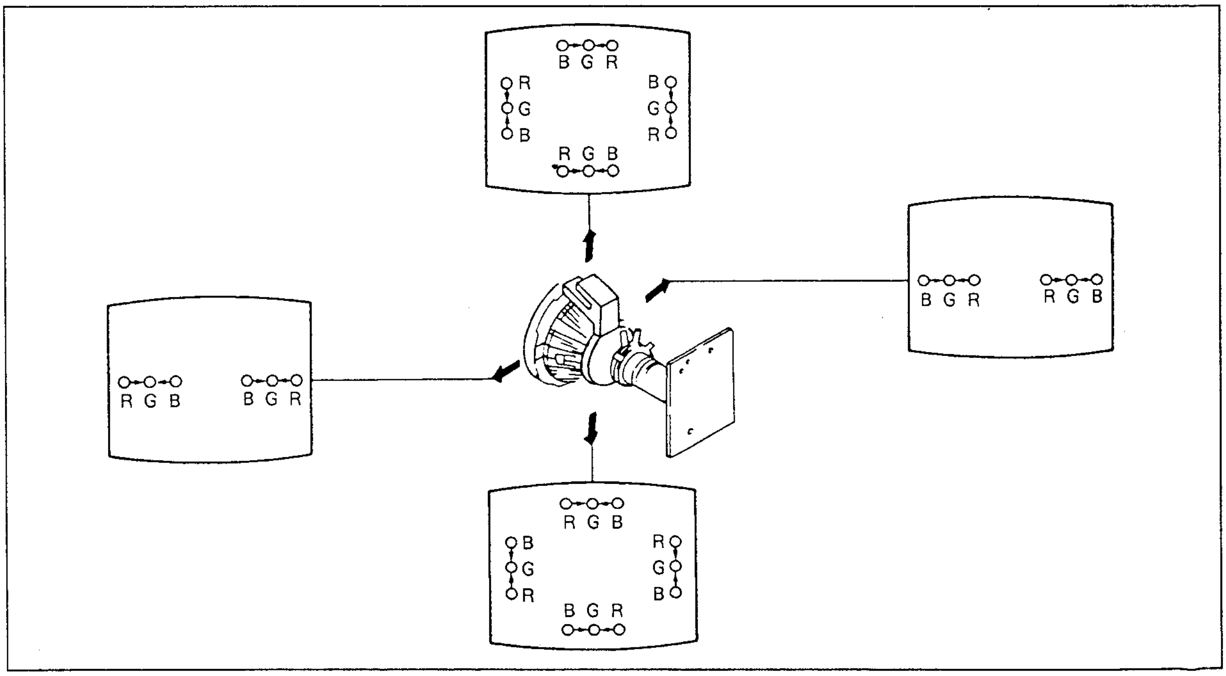

Purity
V. STAT magnet
BMC (Hexapole) magnet

(2) Dynamic Convergence Adjustment

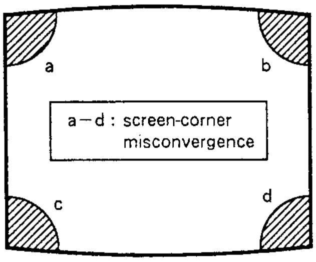
Preparation :

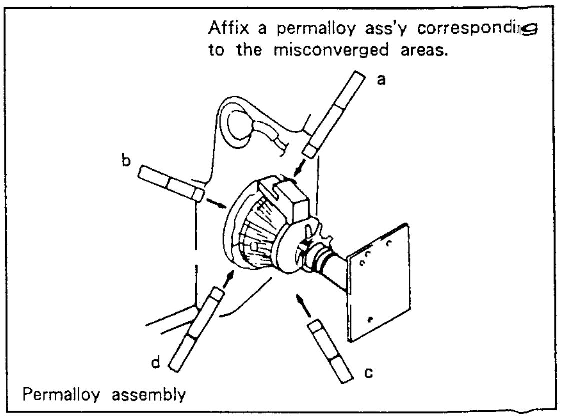
- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.


B G R
R G B
R G B
B G R
R G B
B G R
B G R
R G B
R G B
B G R

(3) Screen-corner Convergence


a
b
c
d
a–d : screen-corner misconvergence


Affix a permalloy ass'y corresponding to the misconverged areas.

a
b
c
d
Permalloy assembly

3–3. FOCUS

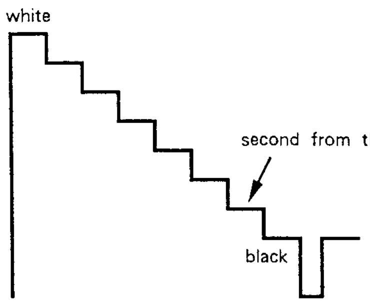
1. Tune in an off-air signal.
2. PICTURE → control to normal.
3. Adjust the focus VR on A board so that the focus at the center of the screen is optimum.
   A magenta ring will appear if the focus is adjusted only in the center of the screen. Adjust evenly throughout the entire screen.

3–4. G2, WHITE BALANCE ADJUSTMENTS (Using the remote commander)

1. CUT OFF (G2) ADJUSTMENT (RV701)
   1) Set the PICTURE and BRIGHT to normal.
   2) Confirm G1 voltage within 30.0 ±5 V.
   3) Apply DC voltage of 180 V to the cathodes of R, G and B from DC stabilized power source.
   4) While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.

2. WHITE BALANCE ADJUSTMENT
   1) Set to service mode.
   2) Press $\boxed{\text{VIDEO}}$ → $\boxed{\text{RESET}}$ to normal.
   3) Receive an entire white signal.
   4) Set the PICTURE to minimum.
   5) Select S BRT with $\boxed{1}$ and $\boxed{4}$, and then set the level to minimum with $\boxed{3}$ and $\boxed{6}$.
   6) Select G CUT and B CUT with $\boxed{1}$ and $\boxed{4}$, and adjust the level with $\boxed{3}$ and $\boxed{6}$ for the best white balance.
   7) Set the PICTURE to maximum.
   8) Select G AMP and B AMP with $\boxed{1}$ and $\boxed{4}$, and adjust the level with $\boxed{3}$ and $\boxed{6}$ for the best white balance.

3. SUB BRIGHT ADJUSTMENT
   1) Set to service mode.
   2) Receive a stairs wave of black and white from the pattern generator.
   3) BRIGHT ········· normal
      PICTURE ······· minimum
   4) Select S BRT with $\boxed{1}$ and $\boxed{4}$, and adjust SUB BRIGHT level with $\boxed{3}$ and $\boxed{6}$ so that the stripe second from the right is dimly lit.



SECTION 4

SAFETY RELATED ADJUSTMENT

⧓ R567, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

IC301, IC653, PM501, D539, C556, R556, R564, R567, R663, T500

1. Preparation before confimation
   1) Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHT controls to maximum.
   2) Confirm that the voltage of the check terminal of pin ② of F-5 (F BOARD) is more than 127.0 V DC when the set is operating normally with 120.0 ±2.0 V AC supply.
2. Hold-down operation confirmation
   1) Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1620 ±50 μA with PICTURE and BRIGHT etc controls.
   2) Apply DC voltage of over 140.0 V gradually to the check terminal of pin ② of F-5 (F BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 145.0 V DC whereby the raster disappears during operation of hold-down circuit.

      NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
   3) Turn the POWER switch ON, and receive dot signals and adjust ABL current to 150 ±20 μA with PICTURE and BRIGHT etc controls.
   4) Apply DC voltage of over 140.0 V gradually to the check terminal of pin ② of F-5 (F BOARD) via 1T40 from the DC stabilized power source. Confirm that the minimum voltage is less than 145.0 V DC whereby the raster disappears during operation of hold-down circuit.

      NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
3. Hold-down readjustment

   When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R567 (a component marked with ⧓).

⧓ R549, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

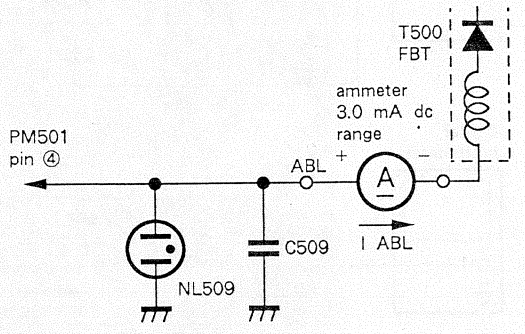
IC301, PM501, R549, R564

1. Preparation before confimation
   1) Remove R663 on the F board and connect a variable resistor (RV1 : about 4.7 kΩ to 10 kΩ) between pin ① of IC653 and B+ line.
   2) Supply 120 ±2.0 V AC to with variable auto-transformer.
2. Hold-down operation confirmation
   1) Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1620 ±50 μA with PICTURE and BRIGHT etc controls.
   2) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 142.5 V DC whereby the raster disappears during operation of hold-down circuit.

      NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
   3) Turn the POWER switch ON, and receive dot signals and adjust ABL current to 150 ±20 μA with PICTURE and BRIGHT etc controls.
   4) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than 144.0 V DC whereby the raster disappears during operation of hold-down circuit.

      NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
3. Hold-down readjustment

   When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R549 (a component marked with ⧓).

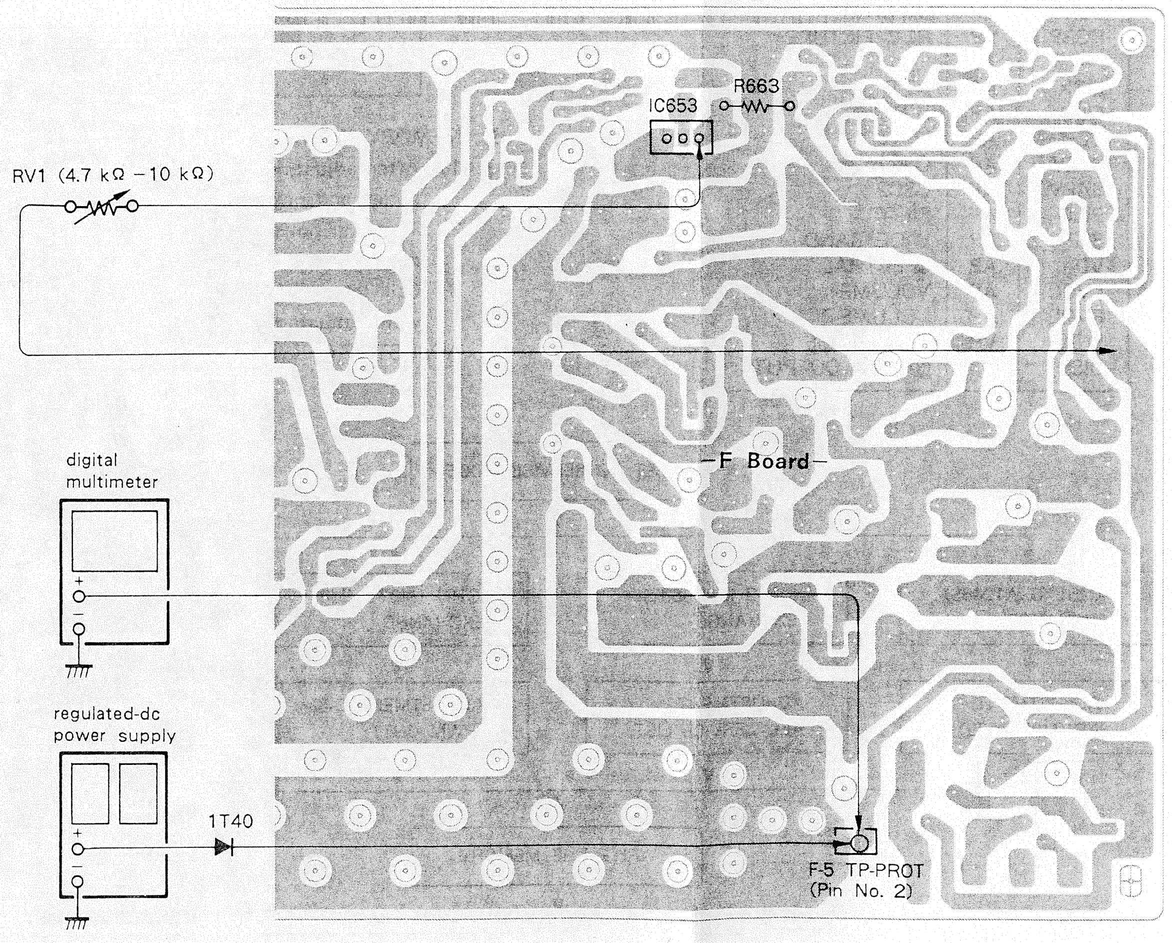


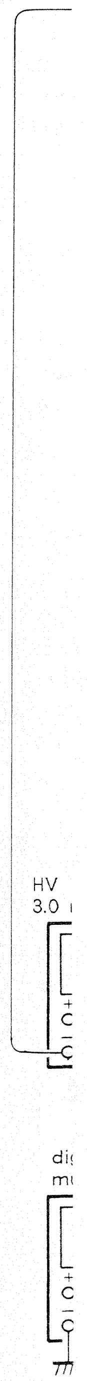
*Use a digital multimeter whose input impedance over 100 MΩ when confirming the voltage of the protector terminal.

B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC653 and R663.

1. The B+ voltage confirmation
   1) Supply $130^{+1.0}_{-0}$ V AC to with variable auto-transformer.
   2) Receive entirely monoscope signals.
   3) Set the PICTURE control and the BRIGHT control into initial reset.
   4) Confirm the voltage of TP91 is less than 137.0 V DC.
   5) If step 4) is not satisfied, replace IC653 and R663 repeat above steps.





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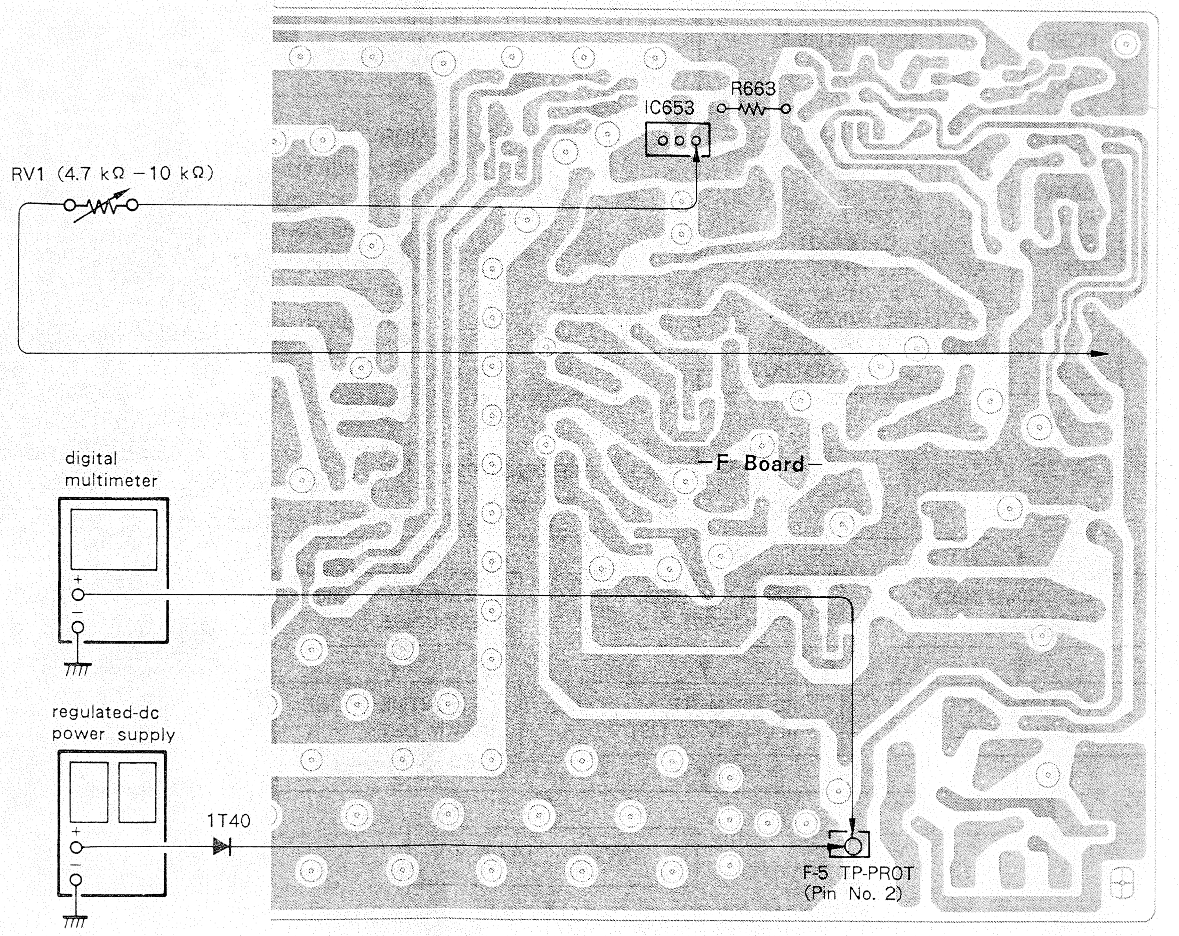
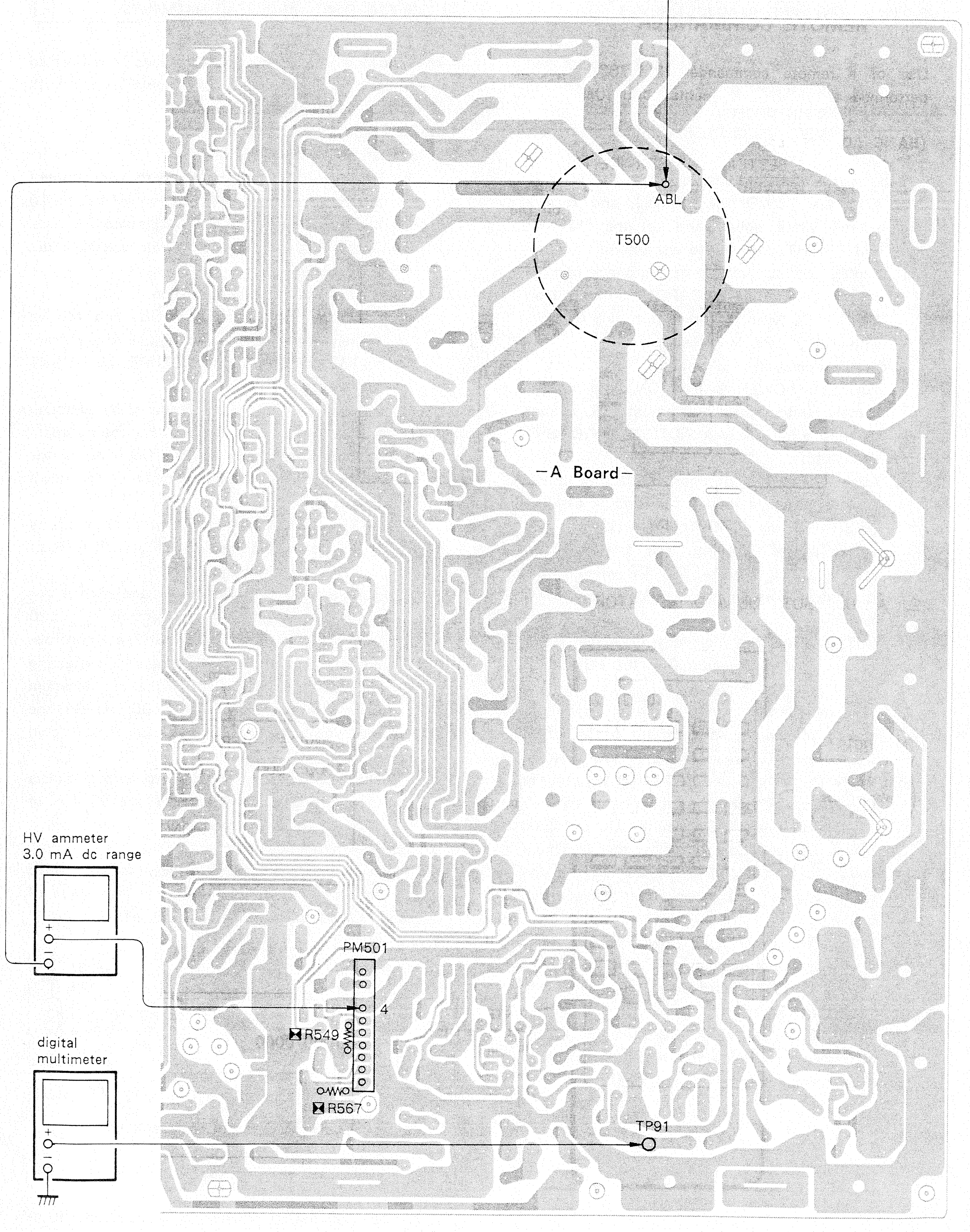
B+ VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC653 and R663.

1. The B+ voltage confirmation
   1) Supply $130^{+1.0}_{-0}$ V AC to with variable auto-transformer.
   2) Receive entirely monoscope signals.
   3) Set the PICTURE control and the BRIGHT control into initial reset.
   4) Confirm the voltage of TP91 is less than 137.0 V DC.
   5) If step 4) is not satisfied, replace IC653 and R663 repeat above steps.


R663
IC653
RV1 (4.7 kΩ −10 kΩ)
digital multimeter
−F Board−
regulated-dc power supply
1T40
F-5 TP-PROT
(Pin No. 2)

Disengage the ABL terminal of FBT from the foil by un-soldering and connect negative probe to the ABL pin of FBT.


ABL
T500
−A Board−
HV ammeter
3.0 mA dc range
PM501
4
R549
R567
digital multimeter
TP91

SECTION 5

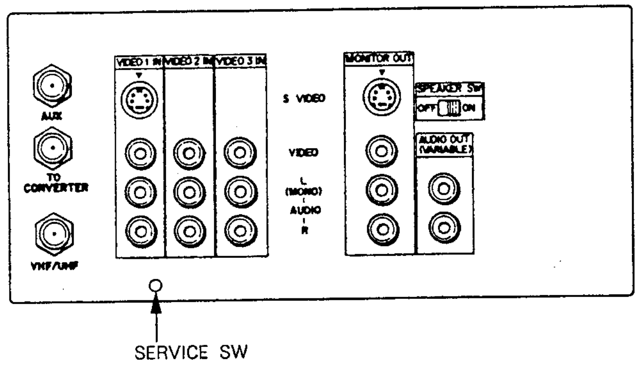
CIRCUIT ADJUSTMENTS

5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

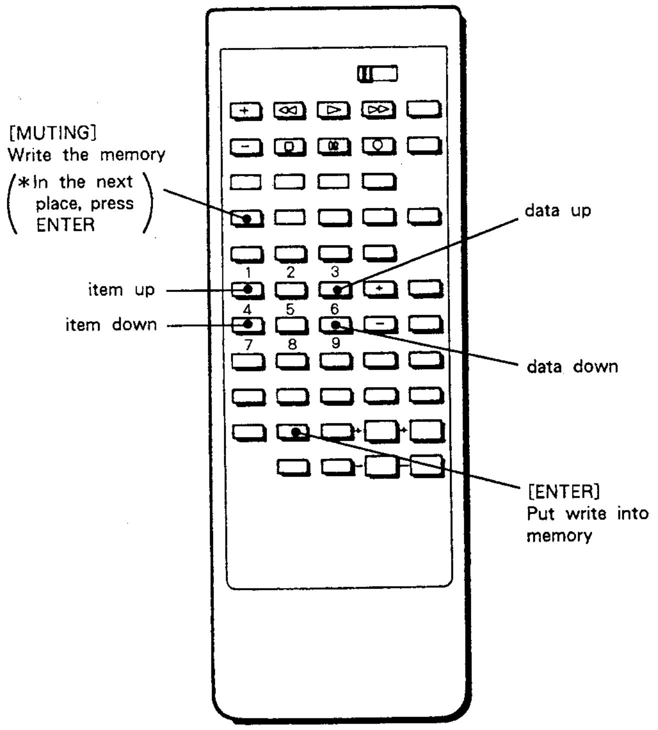
Use of a remote commander (RM-763) can be performed all circuit adjustments about this model.

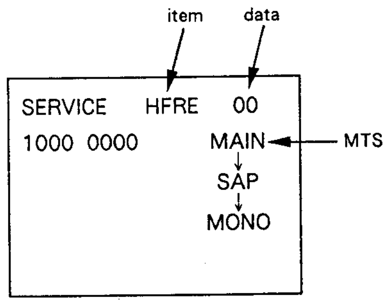
[BASIC ADJUSTMENTS]

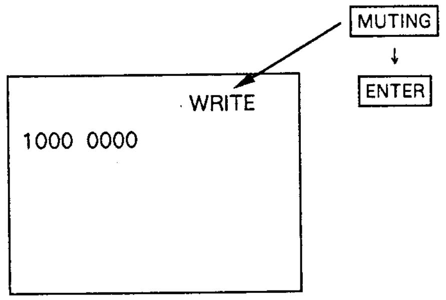
1. METHOD OF SETTING THE SERVICE MODE
   1) Press POWER button on the remote commander while pressing the switch on the rear of the set.


AUX
TO CONVERTER
VHF/UHF
VIDEO 1 IN
VIDEO 2 IN
VIDEO 3 IN
S VIDEO
VIDEO
L (MONO)
AUDIO
R
MONITOR OUT
SPEAKER SW
OFF
ON
AUDIO OUT (VARIABLE)
SERVICE SW

2. ADJUST BUTTONS AND INDICATOR


[MUTING]
Write the memory
(*In the next place, press ENTER)
item up
item down
data up
data down
1
2
3
4
5
6
7
8
9
[ENTER]
Put write into memory

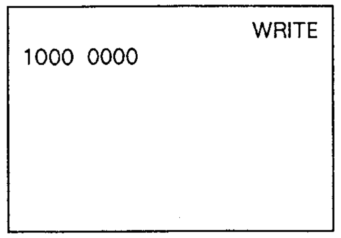

item
data
SERVICE HFRE 00
1000 0000
MAIN
SAP
MONO
MTS


MUTING
ENTER
WRITE
1000 0000

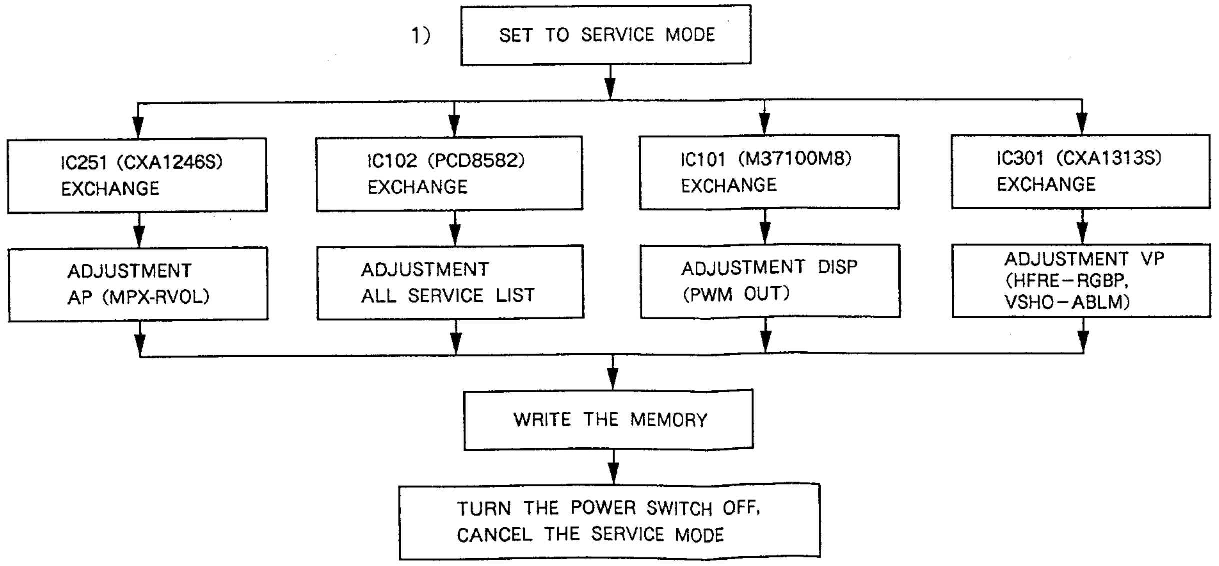
3. AN ITEM OF ADJUSTMENTS

ITEM	NAME REGISTER	
HFRE	VP	H-FREQUENCY
VFRE	VP	V-FREQUENCY
VPOS	VP	V-SHIFT
VSIZ	VP	V-SIZE
VLIN	VP	V-LINEARITY
VSCO	VP	S-CORRECTION
HPOS	VP	H-PHASE
HSIZ	VP	H-SIZE
PAMP	VP	PIN AMP.
CPIN	VP	CORNER PIN
PPHA	VP	PIN PHASE
VCOM	VP	V-COMP.
GAMP	VP	GREEN AMP.
BAMP	VP	BLUE AMP.
GCUT	VP	GREEN CUTOFF
BCUT	VP	BLUE CUTOFF
CROM	VP	CHROMA TRAP
SPIX	VP	PICTURE
SHUE	VP	HUE
SCOL	VP	COLOR
SBRT	VP	BRIGHT
RGBP	VP	RGB PICTURE
MPX	AP	ATT
FILO	AP	I1
DEEM	AP	I2
STEV	AP	OSC1
SAPV	AP	OSC2
PILO	AP	PILOT
SEP	AP	WIDE BAND
VD	AP	SPECTRAL
LVOL	AP	VOLUME-L
RVOL	AP	VOLUME-R
SHAR	VP	SHARPNESS
DISP		③PWM OUTPUT

4. METHOD OF CANCELLATION FROM SERVICE MODE
   Set to standby condition (Press POWER button on the commander). In the next place, press POWER button again, hereupon it becomes TV mode.
5. METHOD OF WRITE FOR MEMORY
   1) Set to service mode.
   2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
   3) Press MUTING button to indicate WRITE (RED) on screen.
   4) Press ENTER button to write for memory. (At this time, WRITE (YELLOW) is indicated on screen.)


WRITE
1000 0000

6. MEMORY WRITE CONFIRMATION METHOD
   1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
   2) Turn the power switch ON and set to service mode.
   3) Call the adjusted items again, confirm they were adjusted.
7. ADJUSTMENT WHEN REPLACING IC


1)
SET TO SERVICE MODE
IC251 (CXA1246S) EXCHANGE
IC102 (PCD8582) EXCHANGE
IC101 (M37100M8) EXCHANGE
IC301 (CXA1313S) EXCHANGE
ADJUSTMENT AP (MPX-RVOL)
ADJUSTMENT ALL SERVICE LIST
ADJUSTMENT DISP (PWM OUT)
ADJUSTMENT VP (HFRE−RGBP, VSHO−ABLM)
WRITE THE MEMORY
TURN THE POWER SWITCH OFF, CANCEL THE SERVICE MODE

NOTE : If service mode is canceled before write for memory, the adjustment data is not recorded.
Please write for memory certainly after adjustment.

3. AN ITEM OF ADJUSTMENTS

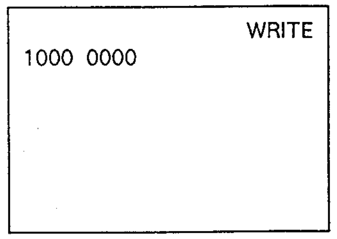
ITEM	NAME REGISTER	
HFRE	VP	H-FREQUENCY
VFRE	VP	V-FREQUENCY
VPOS	VP	V-SHIFT
VSIZ	VP	V-SIZE
VLIN	VP	V-LINEARITY
VSCO	VP	S-CORRECTION
HPOS	VP	H-PHASE
HSIZ	VP	H-SIZE
PAMP	VP	PIN AMP.
CPIN	VP	CORNER PIN
PPHA	VP	PIN PHASE
VCOM	VP	V-COMP.
GAMP	VP	GREEN AMP.
BAMP	VP	BLUE AMP.
GCUT	VP	GREEN CUTOFF
BCUT	VP	BLUE CUTOFF
CROM	VP	CHROMA TRAP
SPIX	VP	PICTURE
SHUE	VP	HUE
SCOL	VP	COLOR
SBRT	VP	BRIGHT
RGBP	VP	RGB PICTURE
MPX	AP	ATT
FILO	AP	I1
DEEM	AP	I2
STEV	AP	OSC1
SAPV	AP	OSC2
PILO	AP	PILOT
SEP	AP	WIDE BAND
VD	AP	SPECTRAL
LVOL	AP	VOLUME-L
RVOL	AP	VOLUME-R
SHAR	VP	SHARPNESS
DISP		③PWM OUTPUT

4. METHOD OF CANCELLATION FROM SERVICE MODE

Set to standby condition (Press POWER button on the commander). In the next place, press POWER button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

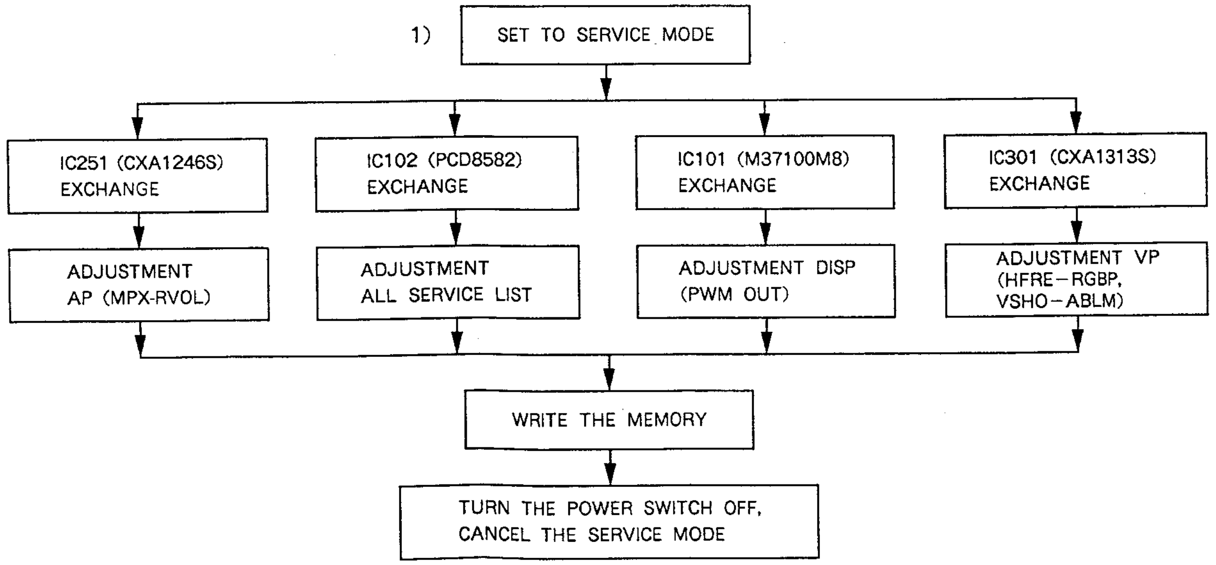
1) Set to service mode.
2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
3) Press MUTING button to indicate WRITE (RED) on screen.
4) Press ENTER button to write for memory. (At this time, WRITE (YELLOW) is indicated on screen.)



6. MEMORY WRITE CONFIRMATION METHOD

1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2) Turn the power switch ON and set to service mode.
3) Call the adjusted items again, confirm they were adjusted.

7. ADJUSTMENT WHEN REPLACING IC


1)
SET TO SERVICE MODE
IC251 (CXA1246S) EXCHANGE
IC102 (PCD8582) EXCHANGE
IC101 (M37100M8) EXCHANGE
IC301 (CXA1313S) EXCHANGE
ADJUSTMENT AP (MPX-RVOL)
ADJUSTMENT ALL SERVICE LIST
ADJUSTMENT DISP (PWM OUT)
ADJUSTMENT VP (HFRE−RGBP, VSHO−ABLM)
WRITE THE MEMORY
TURN THE POWER SWITCH OFF, CANCEL THE SERVICE MODE

NOTE : If service mode is canceled before write for memory, the adjustment data is not recorded.
Please write for memory certainly after adjustment.

2) The following first setting should always be performed when replacing the IC102 (PCD8582).

ITEM	NAME REGISTER		ADJUSTMENT
VSMO	VP	VSMO	0
AFC	VP	AFC 1.0	0
REF	VP	REF 1.0	2
ROFF	VP	OFF NR	1
GOFF	VP	OFF NG	1
BOFF	VP	OFF NB	1
ABLM	VP	ABLM	1
TEST	AP	T	0
DRGB	VP	DRGB	1

* Please write the memory each items by MUTING → ENTER.

5−2. CIRCUIT ADJUSTMENTS

RF AGC ADJUSTMENT (IF BLOCK VR)

1) Receive a color-bar signal.
2) Adjust AGC VR of IF201 so that snow noise and cross-modulation disappear from the picture.
3) Confirm them at every channel.

H. FREQUENCY ADJUSTMENT

1) Set to service mode.
2) Receive a color-bar signal.
3) Connect a frequency counter to base of Q502.
4) Call the item of AFC, set to 3 level (free run).
5) Select HFRE with 1 and 4.
6) Adjust 3 and 6 to the 15,735 ±60 Hz level.
7) Call the item of AFC again, adjust the level "00".
8) Write the memory by MUTING → ENTER.

V. FREQUENCY ADJUSTMENT

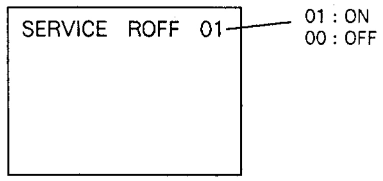
1) Set to service mode.
2) Receive an off-air signal (VIDEO IN → no signal).
3) Connect the frequency counter across pin ⑥ of A-81 connector and ground.
4) Select VFRE with 1 and 4.
5) Adjust 3 and 6 to 55 ±1 Hz.
6) Write the memory by MUTING → ENTER.

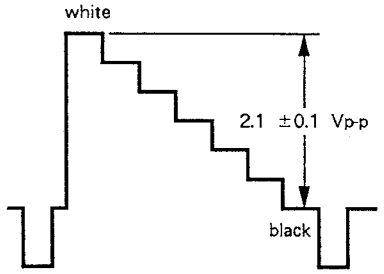
CHROMA TRAP ADJUSTMENT

1) Set to service mode.
2) Receive a color-bar signal.
3) Select NOTCH (VIDEO condition), turn "ON" by +. And then set the COLOR VR to maximum setting and SHARPNESS control to center.
4) Connect an oscilloscope to TP47R (R OUT) on C board.
5) Select C ROM with 1 and 4, and then adjust 3.58 MHz (CHROMA) ingredient is minimum with 3 and 6.
6) Write the memory by MUTING → ENTER.
7) Set NOTCH to OFF, and make normal condition with VIDEO → RESET.

SUB CONTRAST ADJUSTMENT

1) Set to service mode.
2) Receive a color-bar signal. (75 IRE)
3) PICTURE ······· MAX
COLOR ·········· MIN
R OFF ·········· ON
G OFF ·········· OFF
B OFF ·········· OFF
Press VIDEO → − (L) (It becomes minimum).
Select 3 (ON) and 6 (OFF) with 1 and 4.



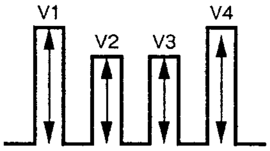


4) Connect an oscilloscope to TP47R (R OUT) on C board.
5) Adjust 3 and 6 to the 2.1 ±0.1 Vp-p level by select SPIX with 1 and 4.
6) Write the memory by MUTING → ENTER.
7) Return normal after adjustment.
G OFF ·········· ON
B OFF ·········· ON
COLOR ·········· CENTER
PICTURE ······· 80%

SUB HUE, SUB COLOR ADJUSTMENT

1) Receive a color-bar signal.
2) Press VIDEO → RESET to normal.

3) Set to service mode.
4) Connect an oscilloscope TP47B (B OUT) on C board.
5) Adjust [3] and [4] to become V1=V4 and V2=V3 by select to SHUE and SCOL with [1] and [4].



6) Write for memory by [MUTING] → [ENTER].

V. SIZE ADJUSTMENT

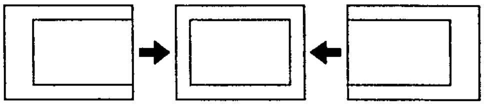
1) Set to service mode.
2) Receive a cross-hatch signal.
3) Adjust [3] and [6] to become best vertical size by select to VSIZ with [1] and [4].
4) Write for memory by [MUTING] → [ENTER].

H. SIZE ADJUSTMENT

1) Receive a cross-hatch signal.
2) Press [VIDEO] → [RESET] to normal.
3) Set to service mode.
4) Adjust [3] and [6] to become best horizontal size by select to HSIZ with [1] and [4].
5) Write for memory by [MUTING] → [ENTER].

H. CENTER ADJUSTMENT

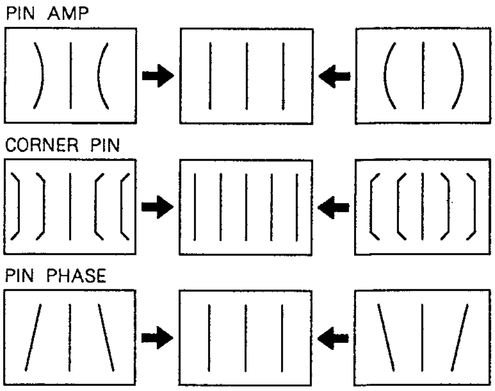
Note : Act this adjustment after H. FREQ adjustment.
1) Receive a cross-hatch signal.
2) Press [VIDEO] → [RESET] to normal.
3) Set to service mode.
4) Select to HPOS with [1] and [4].
5) Adjust [3] and [6] to become best picture.



6) Write for memory by [MUTING] → [ENTER].

PIN AMP, CORNER PIN AND PIN PHASE ADJUSTMENT

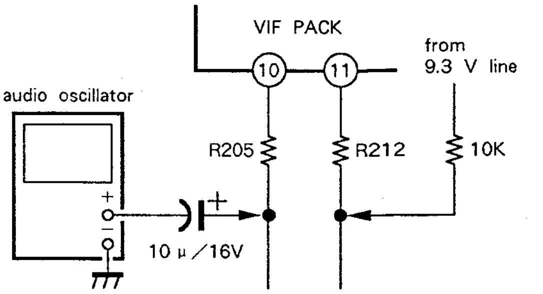
1) Receive a cross-hatch signal.
2) Press [VIDEO] → [RESET] to normal.
3) Set to service mode.
4) Select to PAMP, CPIN and PPHA with [1] and [4].
5) Adjust [3] and [6] to become best picture.



6) Write for memory by [MUTING] → [ENTER].

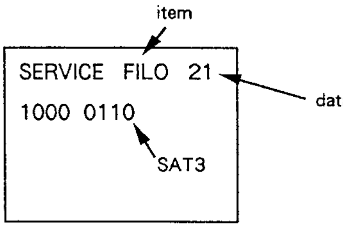
FILTER ADJUSTMENT

1) Set to service mode.
2) Select to TEST with [1] and [4], set the data to "1". Then select MPX and make data to "08".
3) Connect an audio oscillator to R205 via chemical capacitor (10 μF/16 V) and apply freauency of V_{4fH}. And then, apply DC volttage to R212 via resistor of 10 kΩ from 9.3 V line.



V_{4fH} : SINE-WAVE 62.936 kHz
LEVEL 3.0 Vp-p

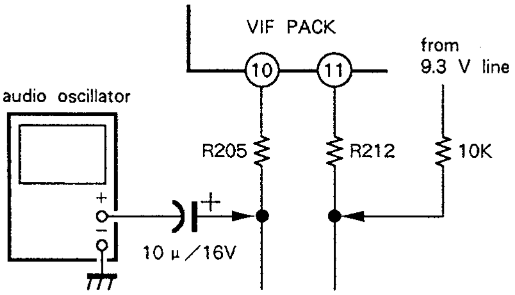
4) make the data "00" by select to FILO with [1] and [4]. And then, send up the data gradually with press of [6], set the data to D1 before SAT3 changes 1 from 0.
5) Send up the data gradually, set the data to D2 when SAT3 changes 0 from 1.
6) Adjust the data of FILO to $\frac{D1+D2}{2}$
7) Write for memory by [MUTING] → [ENTER].



```
SERVICE  FILO  21
1000  0110
```

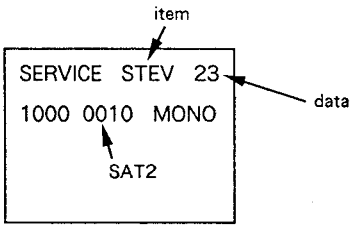
ST VCO ADJUSTMENT

1) Set to service mode.
2) Select to TEST with $\boxed{1}$ and $\boxed{4}$, set the data to "1". And then press $\boxed{\text{MTS}}$ to MONO.
3) Select to MPX, set the data to "08".
4) Connect an audio oscillator to R205 via chemical capacitor (10 μF/16 V) and apply frequency of V_{ST}. And then, apply DC voltage to R212 via register of 10 kΩ from 9.3 V line.



V_{ST} : SINE-WAVE 15.734 kHz
LEVEL 0.28 Vp-p

5) Select STEV with $\boxed{1}$ and $\boxed{4}$, set the data to "00" with $\boxed{6}$. And then, send up the data gradually, set the data D1 before SAT2 changes 0 from 1.
6) Send up the data gradually, set the data to D2 when SAT2 changes 1 from 0.
7) Adjust the data of STEV to $\frac{D1 + D2}{2}$
8) Write for memory by $\boxed{\text{MUTING}}$ → $\boxed{\text{ENTER}}$.



MPX IN LEVEL ADJUSTMENT

1) Set to service mode.
2) Select to TEST with $\boxed{1}$ and $\boxed{4}$, set the data to "0" with $\boxed{6}$. And then press $\boxed{\text{MTS}}$ to MONO.
3) Select to MPX with $\boxed{1}$ and $\boxed{4}$, set the data to "08" with $\boxed{3}$ and $\boxed{6}$.
4) Write for memory by $\boxed{\text{MUTING}}$ → $\boxed{\text{ENTER}}$.

PILOT CANCEL ADJUSTMENT

1) Set to service mode.
2) Select to TEST with $\boxed{1}$ and $\boxed{4}$, set the data to "0" with $\boxed{6}$. And then press $\boxed{\text{MTS}}$ to MAIN.
3) Select to PILO with $\boxed{1}$ and $\boxed{4}$, set the data to "08" with $\boxed{3}$ and $\boxed{6}$.
4) Write for memory by $\boxed{\text{MUTING}}$ → $\boxed{\text{ENTER}}$.

SAP VCO f_0 ADJUSTMENT

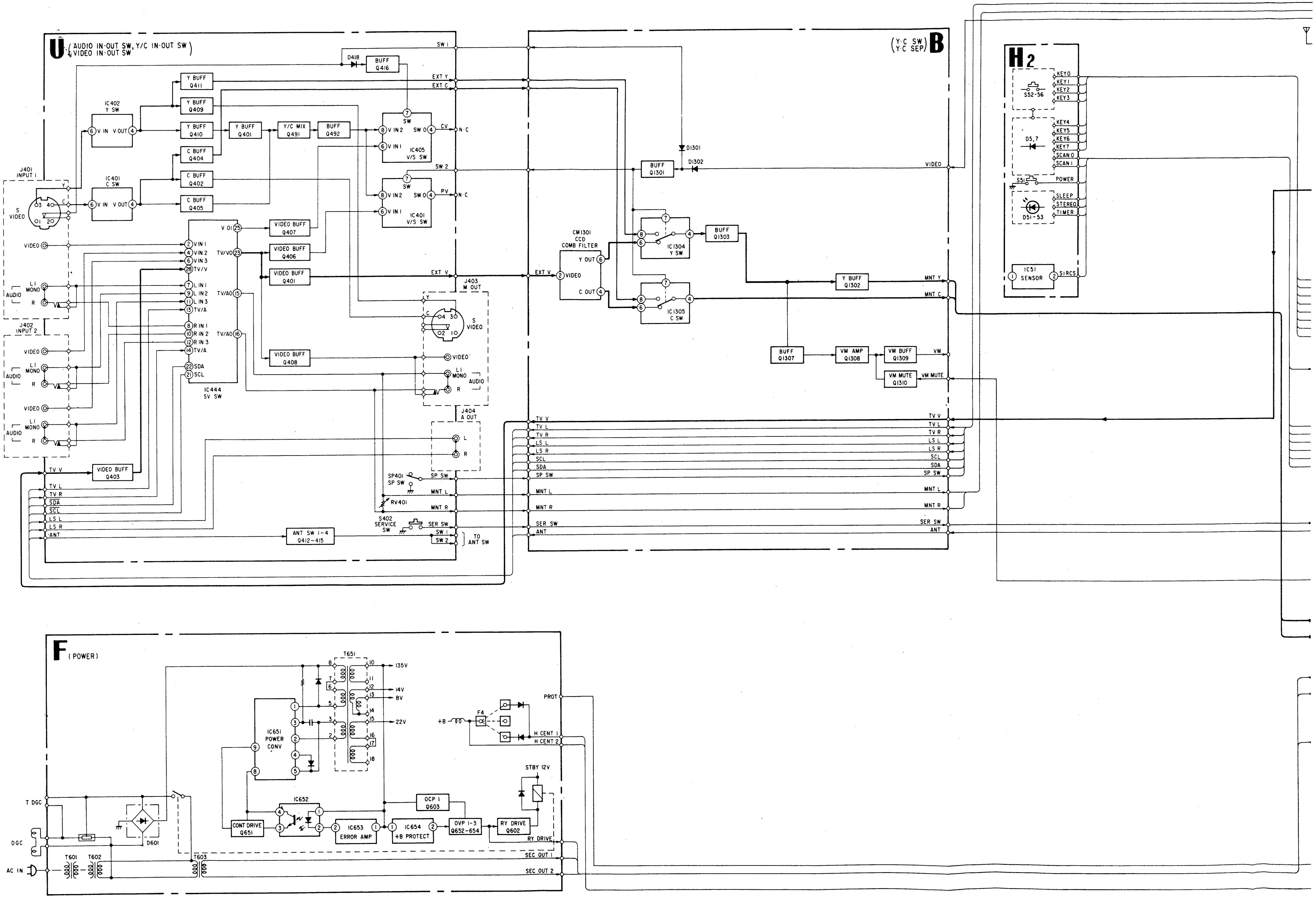
1) Set to service mode.
2) Receive a stereo broadcast including SAP.
3) Select to TEST with $\boxed{1}$ and $\boxed{4}$, set to the data to "0". And then, press $\boxed{\text{MTS}}$ to MAIN.
4) Connect a digital multimeter to pin ① of A-23 connector and this voltage agree upon V1.
5) Press $\boxed{\text{MTS}}$ to SAP and this voltage agree upon V2.
6) Select to SAPV with $\boxed{1}$ and $\boxed{4}$, adjust $\boxed{3}$ and $\boxed{6}$ to become V2=V1 ±0.03 V DC.
7) Write for memory by $\boxed{\text{MUTING}}$ → $\boxed{\text{ENTER}}$.

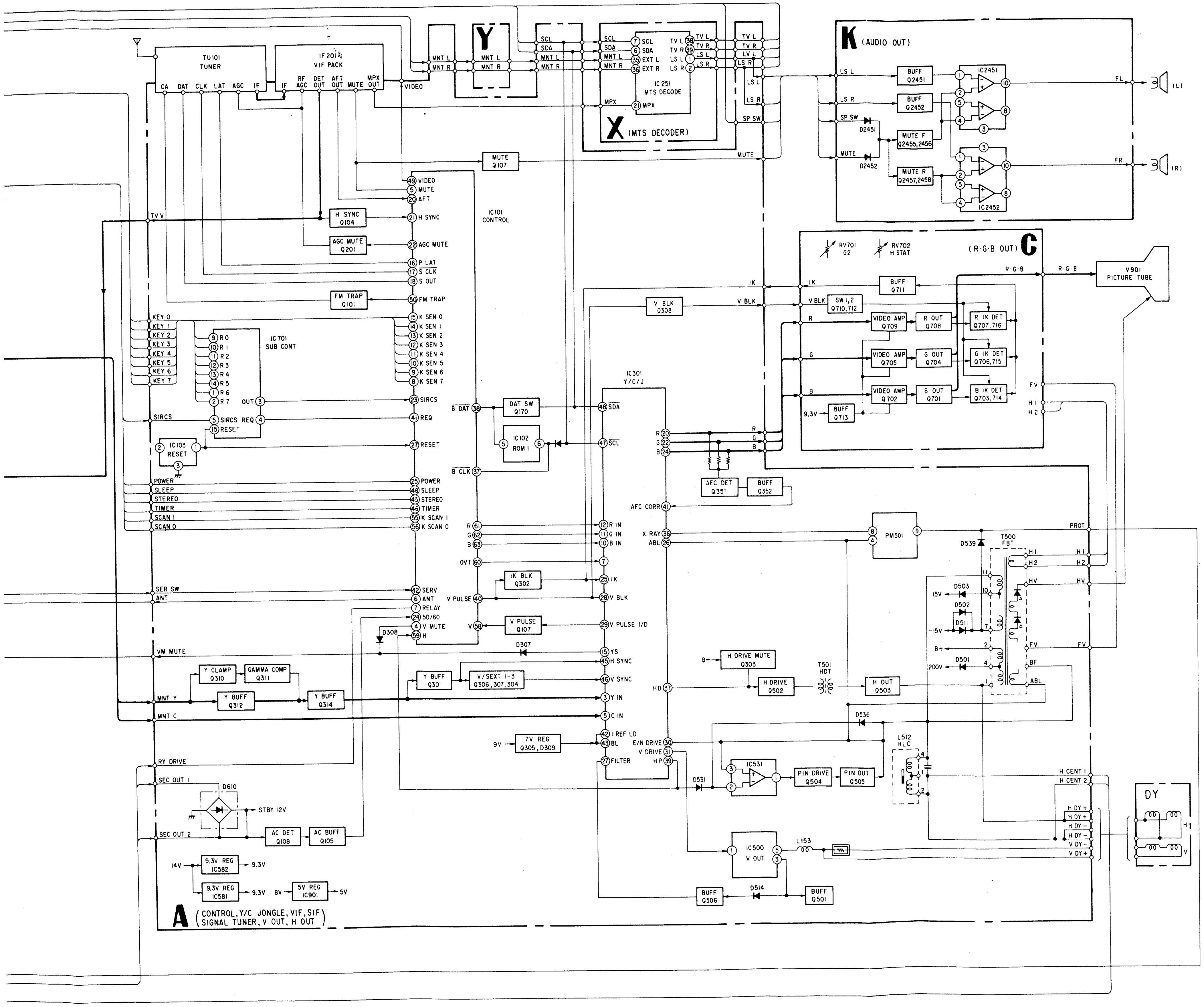
SEPARATION ADJUSTMENT

1) Set to service mode.
2) Press $\boxed{\text{MTS}}$ to MAIN, and receive a monaural broadcast.
   In the next place, receive a stereo broadcast.
3) Select to SEP and VD with $\boxed{1}$ and $\boxed{4}$, adjust $\boxed{3}$ and $\boxed{6}$ to become to obtain stereo effects.

SECTION 6
DIAGRAMS

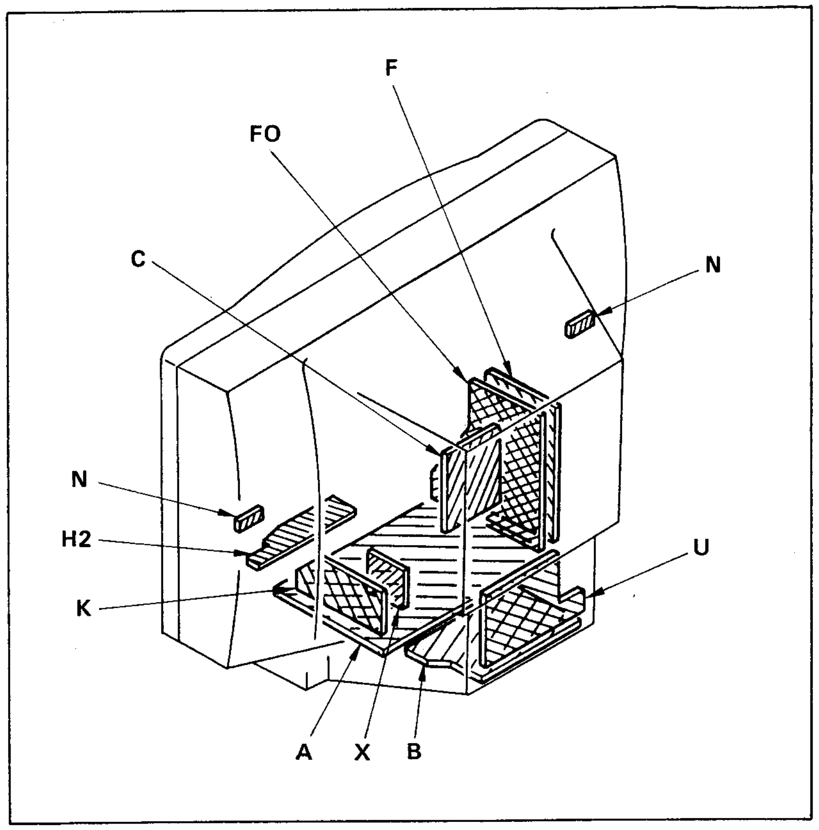
6-1. BLOCK DIAGRAM


U (AUDIO IN-OUT SW, Y/C IN-OUT SW, VIDEO IN-OUT SW)
J401 INPUT 1
S VIDEO
VIDEO
L1 MONO
AUDIO
R
J402 INPUT 2
IC402 Y SW
IC401 C SW
V IN
V OUT
Y BUFF Q411
Y BUFF Q409
Y BUFF Q410
C BUFF Q404
C BUFF Q402
C BUFF Q405
Y BUFF Q401
Y/C MIX Q491
BUFF Q492
D418
BUFF Q416
IC405 V/S SW
IC401 V/S SW
V IN 1
V IN 2
SW O
CV
PV
N·C
SW 1
SW 2
EXT Y
EXT C
EXT V
VIDEO BUFF Q407
VIDEO BUFF Q406
VIDEO BUFF Q401
VIDEO BUFF Q408
VIDEO BUFF Q403
V O1
TV/VO
TV/AO
VIN 1
VIN 2
VIN 3
TV/V
LIN 1
LIN 2
LIN 3
TV/A
RIN 1
RIN 2
RIN 3
SDA
SCL
IC444 SV SW
J403 M OUT
J404 A OUT
SP401 SP SW
RV401
S402 SERVICE SW
ANT SW 1-4 Q412-415
TO ANT SW
TV V
TV L
TV R
LS L
LS R
ANT
SP SW
MNT L
MNT R
SER SW
B (Y·C SW, Y·C SEP)
CM1301 CCD COMB FILTER
Y OUT
C OUT
D1301
D1302
BUFF Q1301
IC1304 Y SW
IC1305 C SW
BUFF Q1303
Y BUFF Q1302
BUFF Q1307
VM AMP Q1308
VM BUFF Q1309
VM MUTE Q1310
MNT Y
MNT C
VM
VM MUTE
H2
S52-56
D5,7
S51
D51-53
IC51 SENSOR
KEY0
KEY1
KEY2
KEY3
KEY4
KEY5
KEY6
KEY7
SCAN0
SCAN1
POWER
SLEEP
STEREO
TIMER
SIRCS
F (POWER)
T651
135V
14V
8V
22V
IC651 POWER CONV
IC652
CONT DRIVE Q651
IC653 ERROR AMP
IC654 +B PROTECT
OCP 1 Q603
OVP 1-3 Q652-654
RY DRIVE Q602
STBY 12V
+B
F4
PROT
H CENT 1
H CENT 2
RY DRIVE
SEC OUT 1
SEC OUT 2
T DGC
DGC
AC IN
T601
T602
T603
D601


TU101
TUNER
CA DAT CLK LAT AGC IF
IF201
VIF PACK
IF RF AGC DET OUT AFT OUT MUTE MPX OUT
VIDEO
MNT L
MNT R
Y
SCL
SDA
MNT L
MNT R
IC251
MTS DECODE
SCL SDA EXT L EXT R MPX
TV L TV R LS L LS R
X (MTS DECODER)
TV L
TV R
LV L
LS R
LS L
LS R
SP SW
MUTE
MUTE
Q107
IC101
CONTROL
VIDEO
MUTE
AFT
H SYNC
Q104
H SYNC
AGC MUTE
Q201
AGC MUTE
P LAT
S CLK
S OUT
FM TRAP
Q101
FM TRAP
TV V
KEY 0
KEY 1
KEY 2
KEY 3
KEY 4
KEY 5
KEY 6
KEY 7
K SEN 0
K SEN 1
K SEN 2
K SEN 3
K SEN 4
K SEN 5
K SEN 6
K SEN 7
IC701
SUB CONT
R0 R1 R2 R3 R4 R5 R6 R7
OUT
SIRCS
SIRCS REQ
RESET
IC103
RESET
SIRCS
REQ
RESET
POWER
SLEEP
STEREO
TIMER
SCAN 1
SCAN 0
K SCAN 1
K SCAN 0
B DAT
DAT SW
Q170
IC102
ROM 1
B CLK
IC301
Y/C/J
SDA
SCL
R G B
AFC DET
Q351
BUFF
Q352
AFC CORR
R IN
G IN
B IN
OVT
IK BLK
Q302
IK
V PULSE
V BLK
V PULSE
Q107
V PULSE I/D
X RAY
ABL
V BLK
Q308
SER SW
ANT
SERV
ANT
RELAY
50/60
V MUTE
H
D308
D307
VM MUTE
YS
H SYNC
V SYNC
Y CLAMP
Q310
GAMMA COMP
Q311
Y BUFF
Q301
V/SEXT 1-3
Q306, 307, 304
MNT Y
Y BUFF
Q312
Y BUFF
Q314
Y IN
MNT C
C IN
9V
7V REG
Q305, D309
I REF LD
BL
FILTER
E/N DRIVE
V DRIVE
HP
HD
B+
H DRIVE MUTE
Q303
H DRIVE
Q502
T501
HDT
H OUT
Q503
RY DRIVE
SEC OUT 1
D610
STBY 12V
SEC OUT 2
AC DET
Q108
AC BUFF
Q105
14V
9.3V REG
IC582
9.3V
9.3V REG
IC581
8V
5V REG
IC901
5V
A (CONTROL, Y/C JONGLE, VIF, SIF SIGNAL TUNER, V OUT, H OUT)
K (AUDIO OUT)
LS L
LS R
SP SW
MUTE
D2451
D2452
BUFF
Q2451
BUFF
Q2452
MUTE F
Q2455, 2456
MUTE R
Q2457, 2458
IC2451
IC2452
FL
FR
(L)
(R)
RV701
G2
RV702
H STAT
(R·G·B OUT) C
IK
V BLK
R
G
B
BUFF
Q711
SW 1,2
Q710, 712
VIDEO AMP
Q709
R OUT
Q708
R IK DET
Q707, 716
VIDEO AMP
Q705
G OUT
Q704
G IK DET
Q706, 715
VIDEO AMP
Q702
B OUT
Q701
B IK DET
Q703, 714
9.3V
BUFF
Q713
R·G·B
V901
PICTURE TUBE
FV
H1
H2
PM501
PROT
D539
T500
FBT
H1
H2
HV
FV
BF
ABL
D503
15V
D502
D511
-15V
B+
D501
200V
D536
IC531
D531
PIN DRIVE
Q504
PIN OUT
Q505
L512
HLC
H CENT 1
H CENT 2
H DY +
H DY +
H DY -
H DY -
V DY -
V DY +
IC500
V OUT
L153
D514
BUFF
Q506
BUFF
Q501
DY
H
V

MEMO

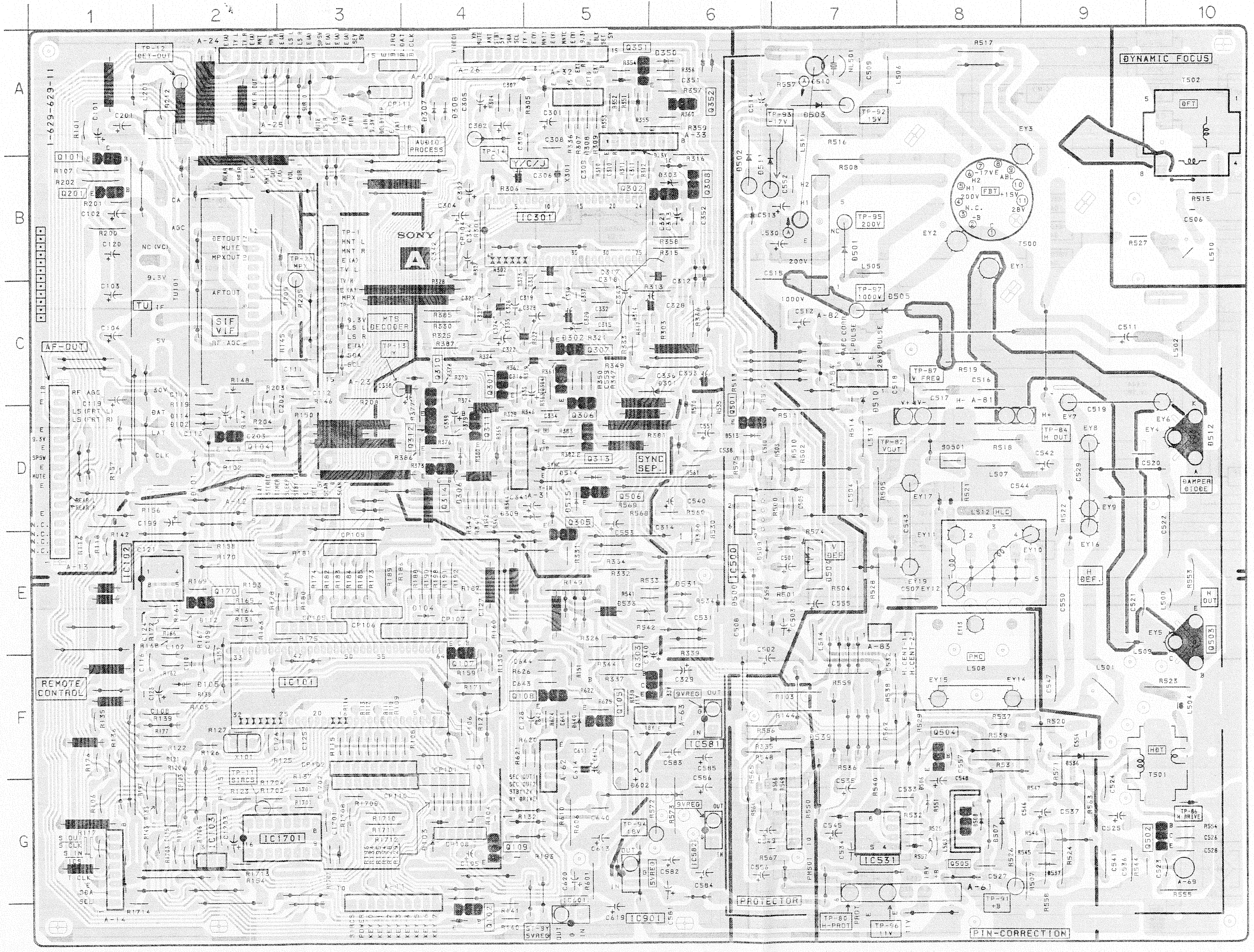
6-2. CIRCUIT BOARDS LOCATION


F
FO
C
N
N
H2
K
U
A
X
B

KV-27HSR10
RM-763

6-3. PRINTED WIRING BOARDS *– Conductor Side –*

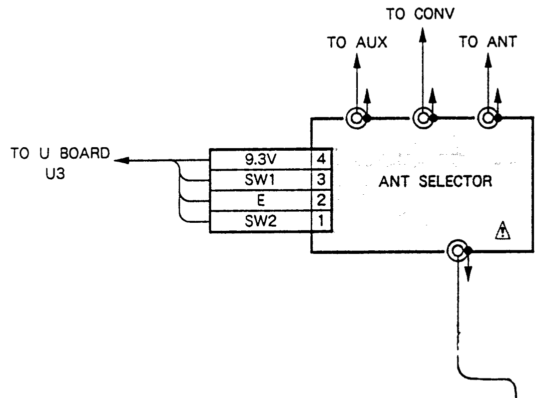
– A Board –

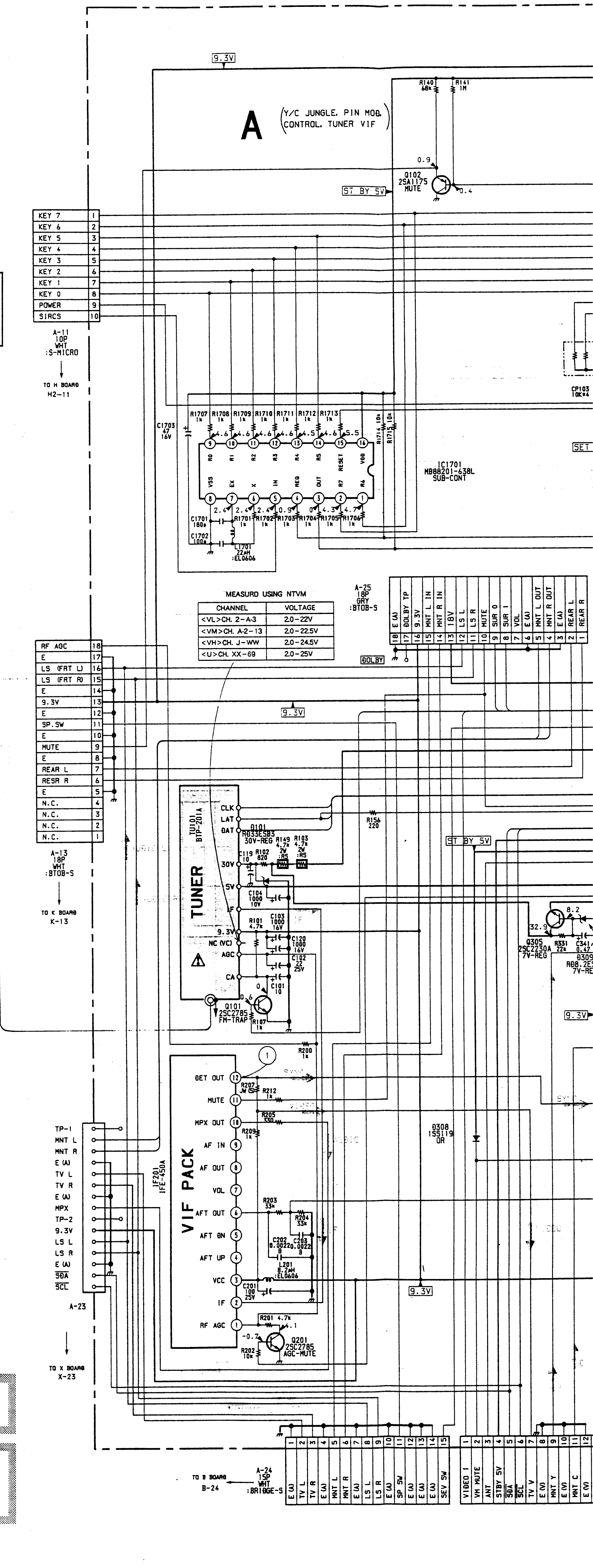

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
1-629-623-11
SONY
A
DYNAMIC FOCUS
FBT
AF-OUT
TU
SIF VIF
MTS DECODER
Y/C/J
AUDIO PROCESS
SYNC SEP.
REMOTE CONTROL
IC101
IC102
IC103
IC301
IC500
IC531
IC581
IC582
IC601
IC901
IC1701
PROTECTOR
PIN-CORRECTION
DAMPER DIODE
H BEF.
H OUT
HDT
HLC
PMC
T500
T501
T502
9VREG
5VREG

A BOARD LOCATION

Ref.	Location
IC	
IC101	F-3
IC102	E-2
IC103	G-2
IC301	B-5
IC500	E-6
IC531	G-7
IC581	F-6
IC582	G-6
IC601	H-5
IC901	G-5
IC1701	G-3
TRANSISTOR	
Q101	B-1
Q102	H-4
Q104	D-2
Q105	F-5
Q107	F-4
Q108	F-5
Q170	E-2
Q201	B-1
Q301	C-4
Q302	B-6
Q303	F-6
Q304	C-5
Q305	E-5
Q306	D-5
Q307	C-5
Q308	B-6
Q310	C-4
Q311	D-4
Q312	D-4
Q313	D-5
Q314	D-4
Q351	A-6
Q352	A-6
Q501	D-6
Q502	G-10
Q503	F-10
Q504	F-8
Q505	G-8
Q506	D-5
DIODE	
D101	D-2
D102	D-2
D103	G-4
D104	E-4
D105	F-2
D112	E-2
D114	D-2
D301	C-6
D302	C-5
D303	B-6
D304	C-6
D306	D-4
D307	A-4
D308	A-4
D309	D-5
D350	A-6
D500	E-6
D501	B-7
D502	B-6
D503	A-7
D504	E-7
D505	C-7
D506	G-8
D507	G-8
D508	G-8
D509	E-7
D511	B-7
D512	D-10
D513	D-6
D514	D-5
D515	D-5
D531	E-6
D533	E-6
D536	F-9
D537	G-9
D539	F-7
D602	G-5
D640	F-5

6-4. SCHEMATIC DIAGRAMS


TO CONV
TO AUX
TO ANT
TO U BOARD U3
9.3V
SW1
E
SW2
4
3
2
1
ANT SELECTOR


A
Y/C JUNGLE, PIN MOD, CONTROL, TUNER VIF
9.3V
ST BY 5V
Q102 2SA1175 MUTE
R140 68k
R141 1M
KEY 7
KEY 6
KEY 5
KEY 4
KEY 3
KEY 2
KEY 1
KEY 0
POWER
SIRCS
A-11 10P WHT :S-MICRO
TO H BOARD H2-11
C1703 47 16V
IC1701 MB88201-638L SUB-CONT
C1701 180p
C1702 100p
L1701 22μH :EL0606
CP103 10K×4
A-25 18P GRY :BT08-S
BOLBY
RF AGC
E
LS (FRT L)
LS (FRT R)
9.3V
SP.SW
MUTE
REAR L
REAR R
N.C.
A-13 18P WHT :BT08-S
TO K BOARD K-13
TUNER
TU101 BTP-201A
CLK
LAT
DAT
30V
5V
IF
NC (VC)
AGC
CA
Q101 RD33ESB3 30V-REG
Q101 2SC2785 FM-TRAP
R156 220
VIF PACK
IF201 IFE-450A
DET OUT
MUTE
MPX OUT
AF IN
AF OUT
VOL
AFT OUT
AFT BN
AFT UP
VCC
IF
RF AGC
Q201 2SC2785 AGC-MUTE
L201 8.2μH :EL0606
Q305 2SC2230A 7V-REG
D308 1SS119 OR
TP-1
MNT L
MNT R
E (A)
TV L
TV R
MPX
TP-2
SDA
SCL
A-23
TO X BOARD X-23
TO B BOARD B-24
A-24 15P WHT :BR18GE-S
VIDEO 1
VM MUTE
ANT
STBY 5V

MEASURD USING NTVM

CHANNEL	VOLTAGE
<VL>CH. 2-A-3	2.0-22V
<VM>CH. A-2-13	2.0-22.5V
<VH>CH. J-WW	2.0-24.5V
<U>CH. XX-69	2.0-25V

Note :

- All capacitors are in μF unless otherwise noted.
  pF : μμF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4W

- All resistors are in ohms.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⧓ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment until the specified value is achieved.
- When replacing the part in below table be sure to perform the related adjustment.

Part replaced (◪)	Adjustment (⧓)
IC301, PM501, R549, R564	R549 (HOLD-DOWN)
IC301, IC653, PM501, D539, C556, R556, R564, R567, R663, T500	R567 (HOLD-DOWN)

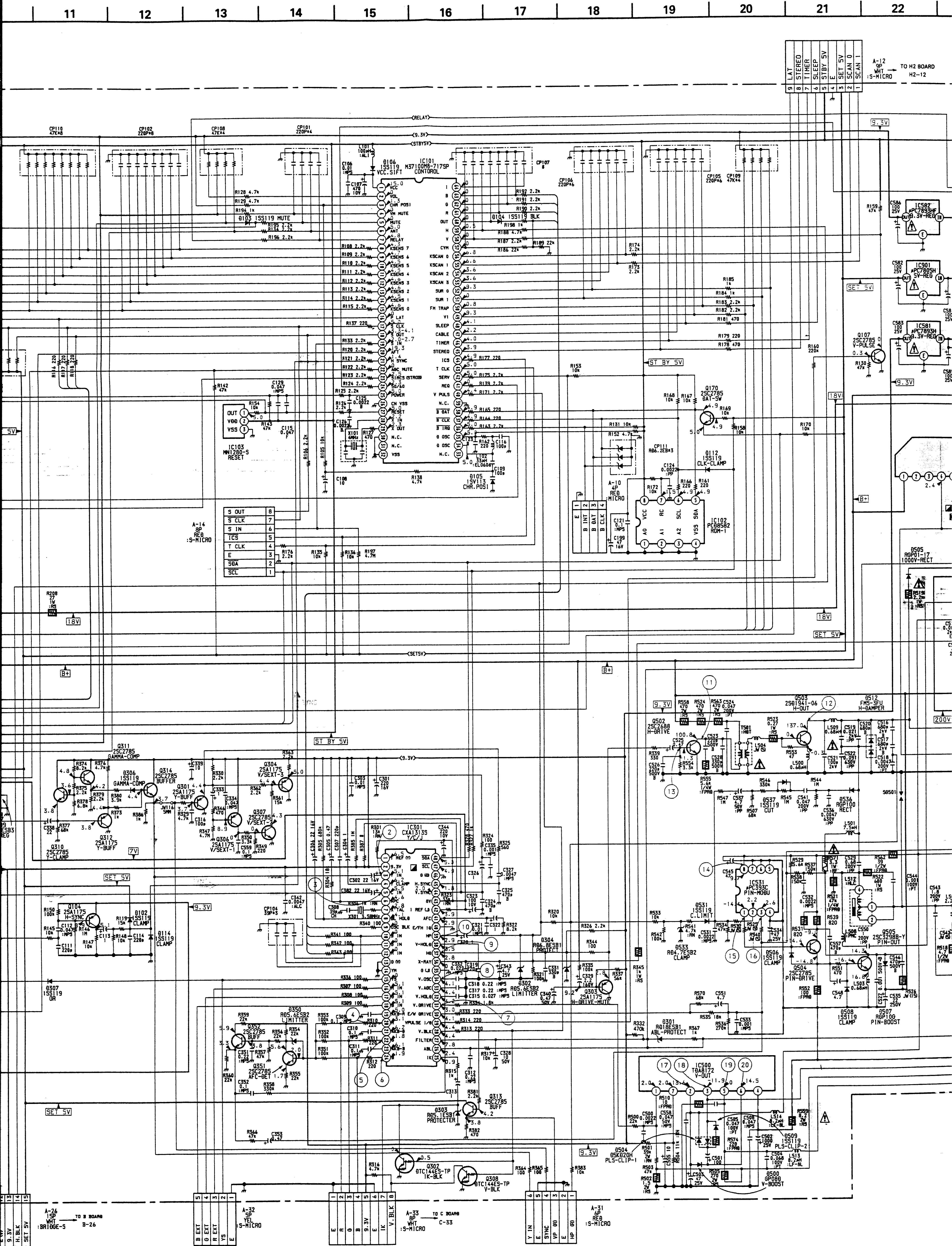
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
- ▬▬ : B+ bus.
- ▬ ▬ ▬ : B− bus.
- ▒▒▷ : signal path.

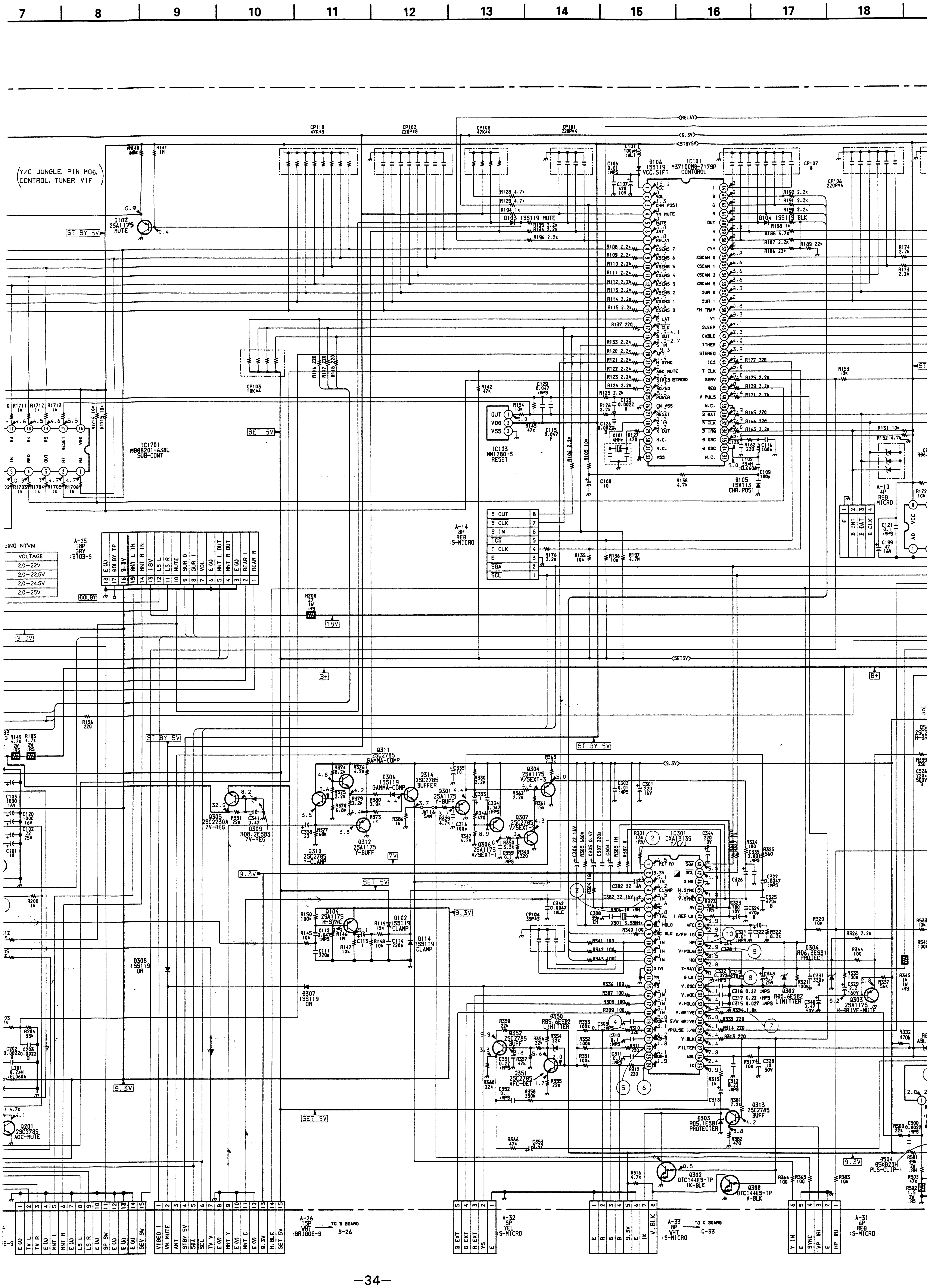
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


11
12
13
14
15
16
17
18
19
20
21
22
LAT
STEREO
TIMER
SLEEP
STBY 5V
E
SET 5V
SCAN 0
SCAN 1
A-12 9P WHT :S-MICRO
TO H2 BOARD H2-12
(RELAY)
(9.3V)
(STBY5V)
CP110 47K*8
CP102 220P*8
CP108 47K*4
CP101 220P*4
CP107
CP106 220P*6
CP105 220P*6
CP109 47K*4
IC101 M37100M8-717SP CONTOROL
D106 1SS119 VCC.SIFT
D103 1SS119 MUTE
D104 1SS119 BLK
D105 1SV113 CHR.POSI
X101 4MHz
L101 100mH :AL1
L102 33mH :EL0406
IC103 MN1280-S RESET
OUT
VDD
VSS
A-14 8P RED :S-MICRO
S OUT
S CLK
S IN
ICS
T CLK
E
SDA
SCL
IC102 PCF8582 ROM-I
A-10 4P RED :MICRO
E
B INT
B DAT
B CLK
VCC
RC
SCL
SDA
A0
A1
A2
VSS
Q170 2SC2785 DAT-SW
D112 1SS119 CLK-CLAMP
CP111 RB6.2EB*3
ST BY 5V
18V
SET 5V
9.3V
B+
IC582 μPC7893HF 9.3V-REG
IC901 μPC7805H 5V-REG
IC581 μPC7893H 9.3V-REG
Q107 2SC2785 V-PULSE
D505 RGP01-17 1000V-RECT
(SET5V)
R208 27 1W :RS
Q311 2SC2785 GAMMA-COMP
Q314 2SC2785 BUFFER
D306 1SS119 GAMMA-COMP
Q304 2SA1175 V/SEXT-3
Q301 2SA1175 Y-BUFF
Q307 2SC2785 V/SEXT-2
Q306 2SA1175 V/SEXT-1
Q312 2SA1175 Y-BUFF
Q310 2SC2785 Y-CLAMP
7V
IC301 CXA1313S Y/C/J
X301 3.58MHz
CP104 39P*3
Q104 2SA1175 H-SYNC
D102 1SS119 CLAMP
D114 1SS119 CLAMP
D307 1SS119 OR
Q352 2SC2785 BUFF
Q350 RD5.6ESB2 LIMITTER
Q351 2SC2785 AFC-DET
D304 RD6.8ESB1 PROTECT
D302 RD5.6ESB2 LIMITTER
Q303 2SA1175 H-DRIVE-MUTE
Q313 2SC2785 BUFF
D303 RD5.1ESB1 PROTECTER
Q302 DTC144ES-TP IK-BLK
Q308 DTC144ES-TP V-BLK
D301 RD18ESB1 ABL-PROTECT
Q502 2SC2688 H-DRIVE
T501 HDT
Q503 2SD1941-06 H-OUT
D512 FMS-3FU H-DAMPER
200V
D536 RGP10G RECT
IC531 μPC393C PIN-MODU
D531 1SS119 C.LIMIT
D533 RD4.7ESB2 CLAMP
D506 1SS119 CLAMP
Q504 2SC2785 PIN-DRIVE
Q505 2SC3298B-Y PIN-OUT
D508 1SS119 CLAMP
D507 RGP10G PIN-BOOST
IC500 TDA8172 V-OUT
D504 DSK020H PLS-CLIP-1
D509 1SS119 PLS-CLIP-2
D500 GP08D V-BOOST
A-26 15P WHT :BRIDGE-S
TO B BOARD B-26
V.BLK
H.BLK
SET 5V
A-32 5P YEL :S-MICRO
B EXT
G EXT
R EXT
YS
E
A-33 8P WHT :S-MICRO
TO C BOARD C-33
E
R
G
B
9.3V
IK
V.BLK
A-31 6P RED :S-MICRO
Y IN
E
SYNC
VP
HP
E


7
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12
13
14
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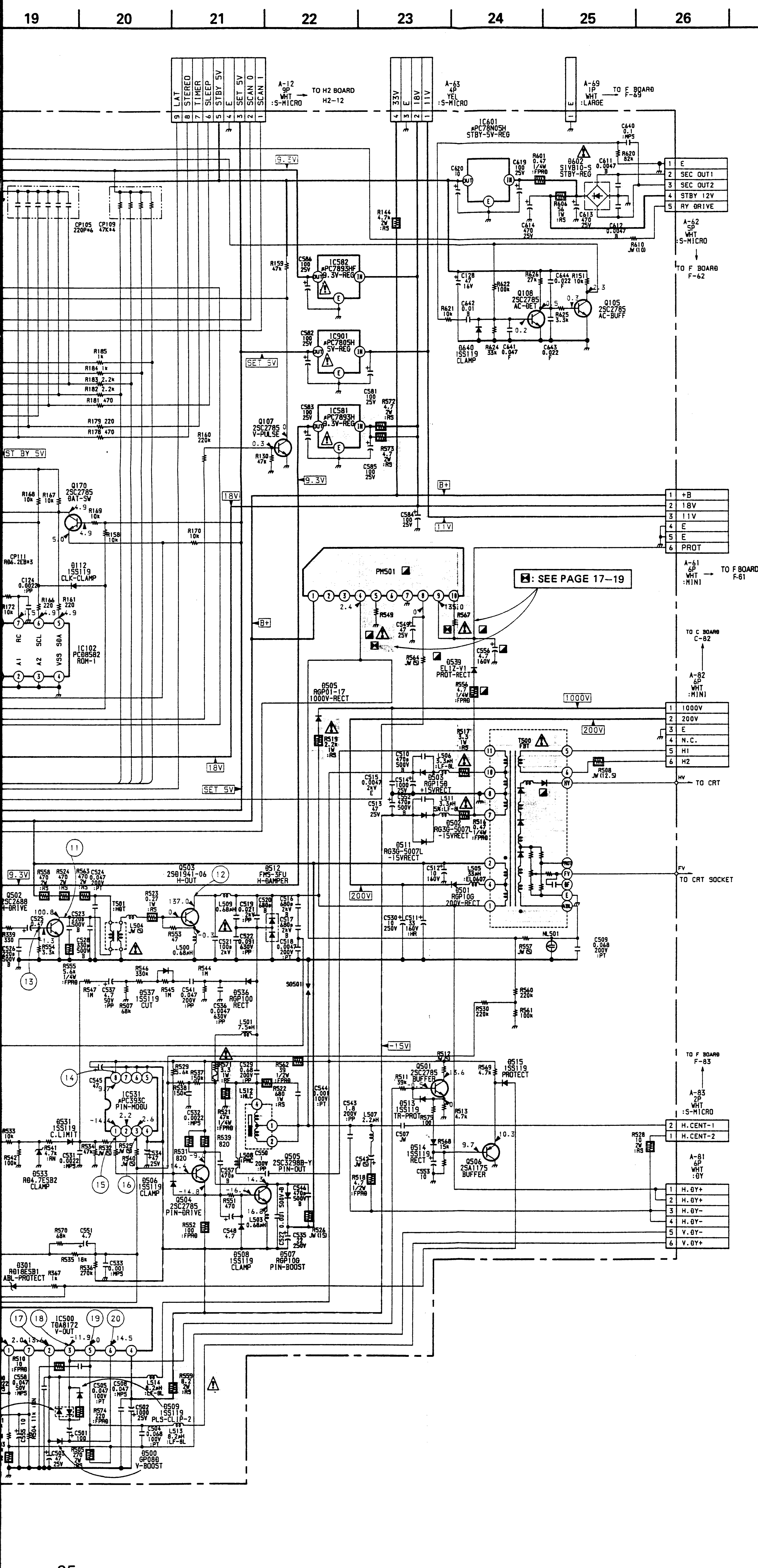
16
17
18
(Y/C JUNGLE, PIN MOD, CONTROL, TUNER VIF)
IC101 M37100M8-717SP CONTOROL
D106 1SS119 VCC.SIFT
D103 1SS119 MUTE
D104 1SS119 BLK
Q102 2SA1175 MUTE
ST BY 5V
SET 5V
IC1701 MB88201-638L SUB-CONT
IC103 MN1280-S RESET
X101 4MHz
D105 15V113 CHR.POSI
A-14 8P RED :S-MICRO
S OUT
S CLK
S IN
ICS
T CLK
E
SDA
SCL
A-25 18P GRY :BTOB-S
DOLBY
18V
B+
(RELAY)
(9.3V)
(STBY5V)
(SET5V)
A-10 4P RED :MICRO
IC301 CXA1313S Y/C/J
Q311 2SC2785 GAMMA-COMP
Q306 1SS119 GAMMA-COMP
Q314 2SC2785 BUFFER
Q301 2SA1175 Y-BUFF
Q304 2SA1175 V/SEXT-3
Q307 2SC2785 V/SEXT-2
Q306 2SA1175 V/SEXT-1
Q305 2SC2230A 7V-REG
D309 RD8.2ESB3 7V-REG
Q310 2SC2785 Y-CLAMP
Q312 2SA1175 Y-BUFF
7V
9.3V
Q104 2SA1175 H-SYNC
D102 1SS119 CLAMP
D114 1SS119 CLAMP
D308 1SS119 OR
D307 1SS119 OR
X301 3.58MHz
D304 RD6.8ESB1 PROTECT
D302 RD5.6ESB2 LIMITTER
Q303 2SA1175 H-DRIVE-MUTE
D350 RD5.6ESB2 LIMITTER
Q352 2SC2785 BUFF
Q351 2SC2785 AFC-DET
D303 RD5.1ESB1 PROTECTER
Q313 2SC2785 BUFF
Q302 DTC144ES-TP IK-BLK
Q308 DTC144ES-TP V-BLK
Q201 2SC2785 AGC-MUTE
D504 05KB20H PLS-CLIP-1
A-26 15P WHT :BRIDGE-S
TO B BOARD B-26
A-32 5P YEL :S-MICRO
A-33 8P WHT :S-MICRO
TO C BOARD C-33
A-31 6P RED :S-MICRO
USING NTVM
VOLTAGE
2.0-22V
2.0-22.5V
2.0-24.5V
2.0-25V


19
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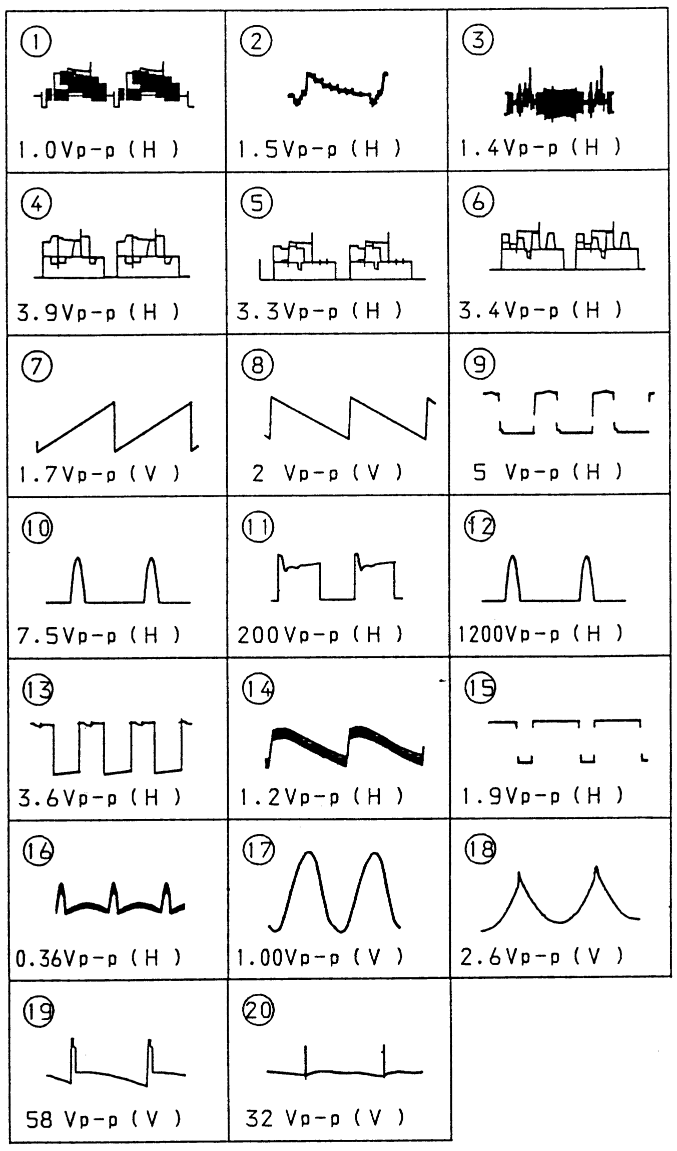
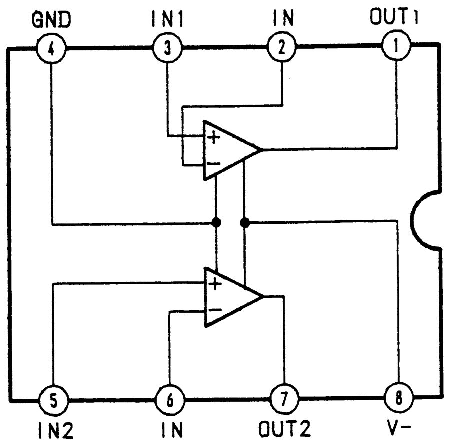
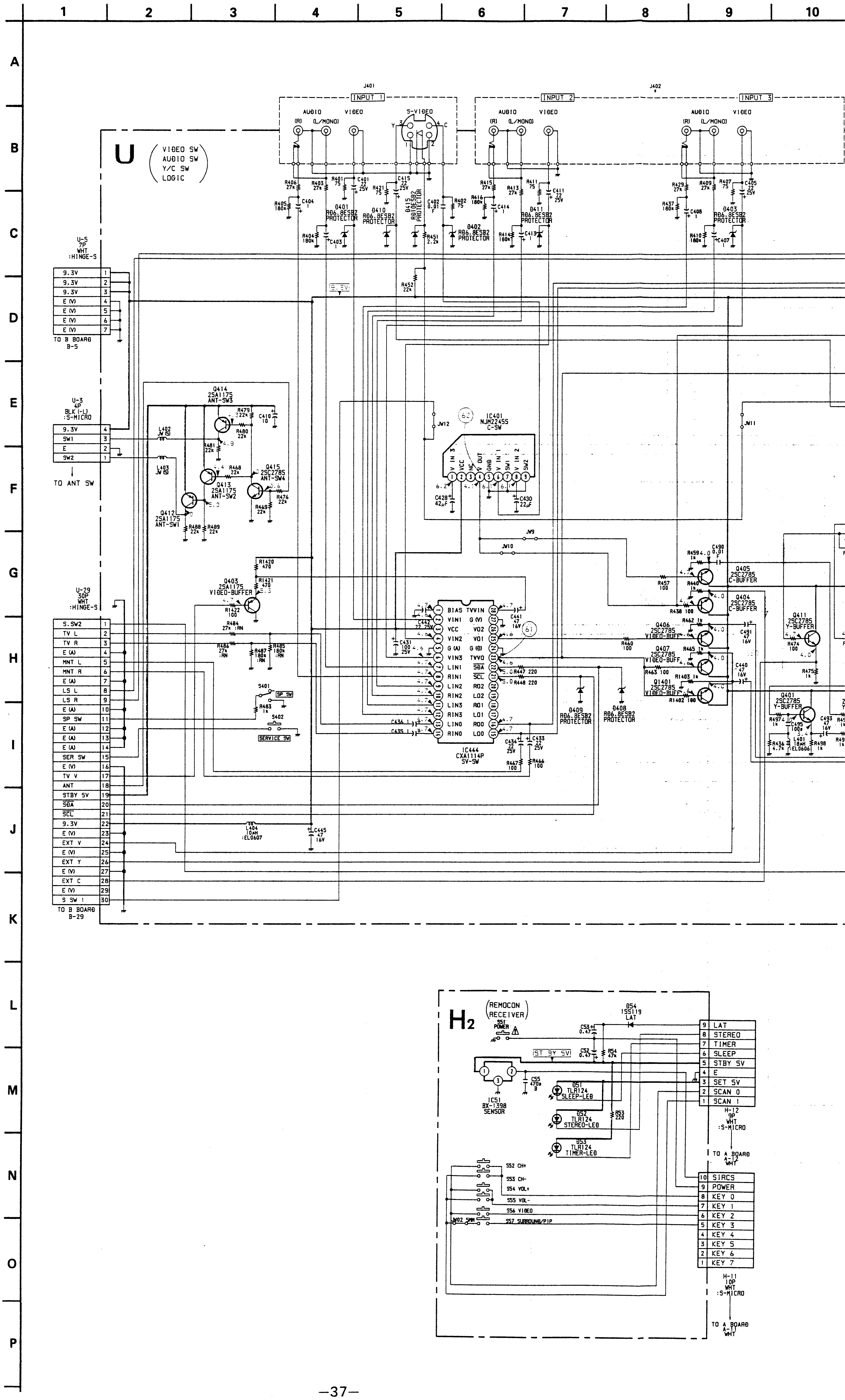
30
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
LAT
STEREO
TIMER
SLEEP
STBY 5V
E
SET 5V
SCAN 0
SCAN 1
A-12 9P WHT :S-MICRO
TO H2 BOARD H2-12
33V
E
18V
11V
A-63 4P YEL :S-MICRO
A-69 1P WHT :LARGE
TO F BOARD F-69
IC601 μPC78N05H STBY-5V-REG
D602 S1VB10-S STBY-REG
E
SEC OUT1
SEC OUT2
STBY 12V
RY DRIVE
A-62 5P WHT :S-MICRO
TO F BOARD F-62
IC582 μPC7893HF 9.3V-REG
IC901 μPC7805H 5V-REG
IC581 μPC7893H 9.3V-REG
Q108 2SC2785 AC-DET
Q105 2SC2785 AC-BUFF
D640 1SS119 CLAMP
Q107 2SC2785 V-PULSE
Q170 2SC2785 BAT-SW
D112 1SS119 CLK-CLAMP
IC102 PCD8582 ROM-1
9.3V
SET 5V
ST BY 5V
18V
B+
11V
+B
18V
11V
E
E
PROT
A-61 6P WHT :MINI
TO F BOARD F-61
PM501
SEE PAGE 17-19
D539 EL1Z-V1 PROT-RECT
D505 RGP01-17 1000V-RECT
TO C BOARD C-82
A-82 6P WHT :MINI
1000V
200V
E
N.C.
H1
H2
1000V
200V
T500 FBT
HV TO CRT
FV TO CRT SOCKET
D503 RGP15B +15VRECT
D502 RG3G-5007L -15VRECT
D511 RG3G-5007L -15VRECT
D501 RGP10G 200V-RECT
200V
Q502 2SC2688 H-DRIVE
Q503 2SD1941-06 H-OUT
D512 FMS-3FU H-DAMPER
T501 HDT
NL501
D537 1SS119 CUT
D536 RGP10D RECT
-15V
IC531 μPC393C PIN-MODU
D531 1SS119 C.LIMIT
D533 RD4.7ESB2 CLAMP
D506 1SS119 CLAMP
Q504 2SC2785 PIN-DRIVE
Q505 2SC3298B-Y PIN-OUT
D508 1SS119 CLAMP
D507 RGP10G PIN-BOOST
Q501 2SC2785 BUFFER
D513 1SS119 TR-PROT
D514 1SS119 RECT
D515 1SS119 PROTECT
Q506 2SA1175 BUFFER
TO F BOARD F-83
A-83 2P WHT :S-MICRO
H.CENT-1
H.CENT-2
A-81 6P WHT :DY
H.DY+
H.DY+
H.DY-
H.DY-
V.DY-
V.DY+
D301 RD18ESB1 ABL-PROTECT
IC500 TDA8172 V-OUT
D509 1SS119 PLS-CLIP-2
D500 GP08D V-BOOST
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳

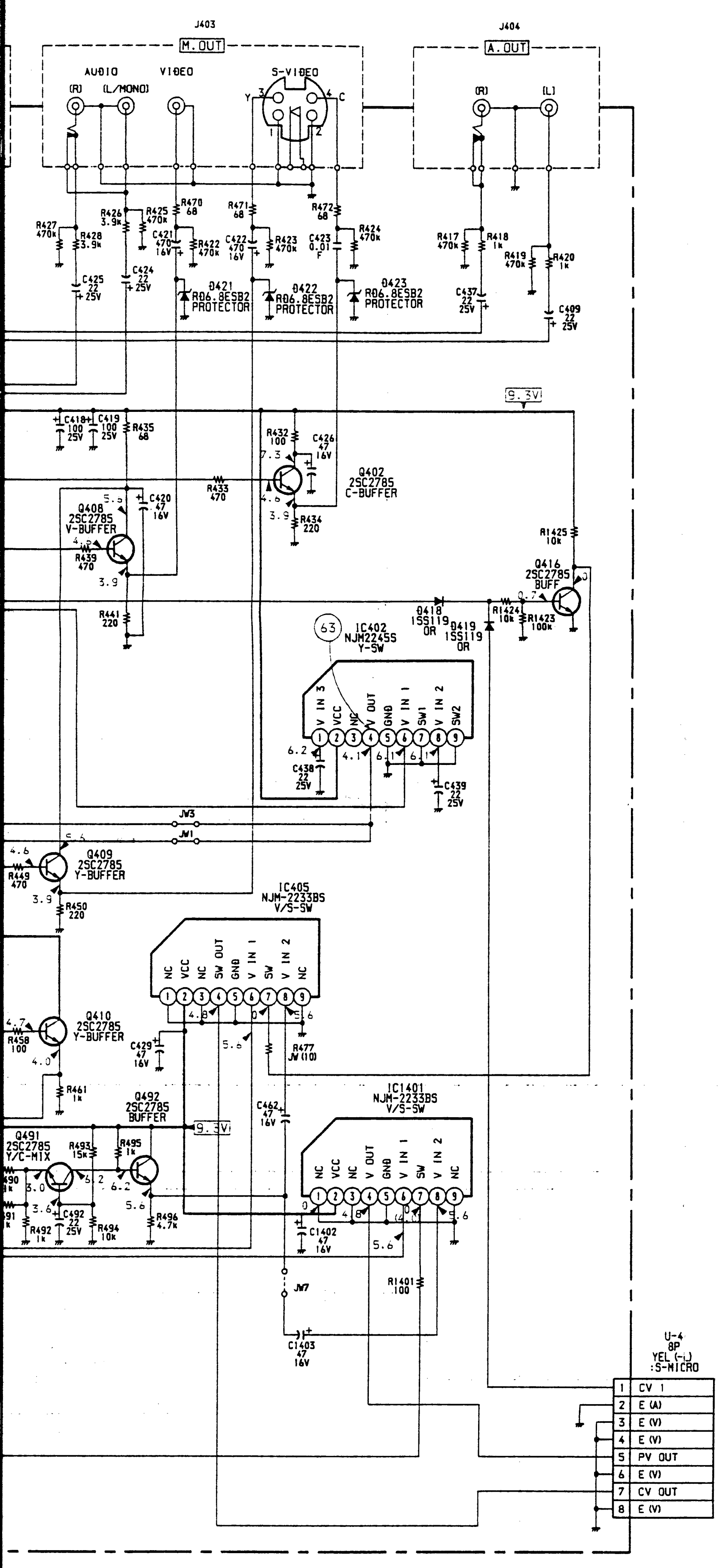
A BOARD WAVEFORM


①
1.0Vp-p (H)
②
1.5Vp-p (H)
③
1.4Vp-p (H)
④
3.9Vp-p (H)
⑤
3.3Vp-p (H)
⑥
3.4Vp-p (H)
⑦
1.7Vp-p (V)
⑧
2 Vp-p (V)
⑨
5 Vp-p (H)
⑩
7.5Vp-p (H)
⑪
200Vp-p (H)
⑫
1200Vp-p (H)
⑬
3.6Vp-p (H)
⑭
1.2Vp-p (H)
⑮
1.9Vp-p (H)
⑯
0.36Vp-p (H)
⑰
1.00Vp-p (V)
⑱
2.6Vp-p (V)
⑲
58 Vp-p (V)
⑳
32 Vp-p (V)

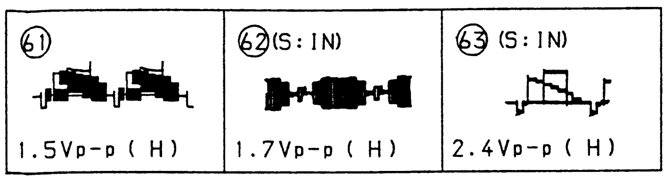
A BOARD IC531 μPC393C


GND
IN1
IN
OUT1
4
3
2
1
5
6
7
8
IN2
IN
OUT2
V-

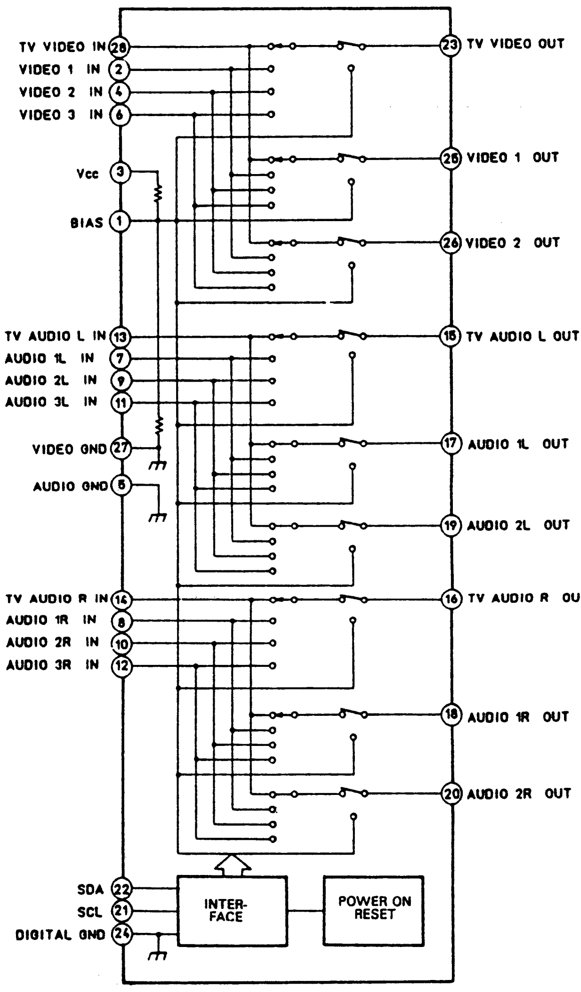
U
VIDEO SW
AUDIO SW
Y/C SW
LOGIC
J401
INPUT 1
J402
INPUT 2
INPUT 3
AUDIO (R) (L/MONO)
VIDEO
S-VIDEO
U-5 7P WHT :HINGE-S
9.3V
E (V)
TO B BOARD B-5
U-3 4P BLK (-L) :S-MICRO
SW1
E
SW2
TO ANT SW
Q414 2SA1175 ANT-SW3
Q415 2SC2785 ANT-SW4
Q413 2SA1175 ANT-SW2
Q412 2SA1175 ANT-SW1
Q403 2SA1175 VIDEO-BUFFER
Q401 R06.8ESB2 PROTECTOR
Q410 R06.8ESB2 PROTECTOR
Q415 R010ESB2 PROTECTOR
Q402 R06.8ESB2 PROTECTOR
Q411 R06.8ESB2 PROTECTOR
Q403 R06.8ESB2 PROTECTOR
IC401 NJM2245S C-SW
V IN 3
VCC
NC
V OUT
GND
V IN 1
SW1
V IN 2
SW2
IC444 CXA1114P SV-SW
BIAS
TVVIN
VIN1
G (V)
VCC
VO2
VIN2
VO1
G (A)
G (D)
VIN3
TVVO
LIN1
SDA
RIN1
SCL
LIN2
RO2
RIN2
LO2
LIN3
RO1
RIN3
LO1
LINO
ROO
RINO
LOO
Q409 R06.8ESB2 PROTECTOR
Q408 R06.8ESB2 PROTECTOR
Q405 2SC2785 C-BUFFER
Q404 2SC2785 C-BUFFER
Q406 2SC2785 VIDEO-BUFF
Q407 2SC2785 VIDEO-BUFF
Q1401 2SC2785 VIDEO-BUFF
Q411 2SC2785 Y-BUFFER
Q401 2SC2785 Y-BUFFER
L401 18µH :EL0606
L404 10µH :EL0607
S401 SP SW
S402 SERVICE SW
U-29 30P WHT :HINGE-S
S.SW2
TV L
TV R
E (A)
MNT L
MNT R
LS L
LS R
SP SW
SER SW
TV V
ANT
STBY 5V
SDA
SCL
EXT V
EXT Y
EXT C
S SW 1
TO B BOARD B-29
H2
REMOCON RECEIVER
S51 POWER
D54 1SS119 LAT
ST BY 5V
IC51 BX-1398 SENSOR
D51 TLR124 SLEEP-LED
D52 TLR124 STEREO-LED
D53 TLR124 TIMER-LED
LAT
STEREO
TIMER
SLEEP
STBY 5V
E
SET 5V
SCAN 0
SCAN 1
H-12 9P WHT :S-MICRO
TO A BOARD A-12 WHT
S52 CH+
S53 CH-
S54 VOL+
S55 VOL-
S56 VIDEO
S57 SURROUND/PIP
SIRCS
POWER
KEY 0
KEY 1
KEY 2
KEY 3
KEY 4
KEY 5
KEY 6
KEY 7
H-11 10P WHT :S-MICRO
TO A BOARD A-11 WHT

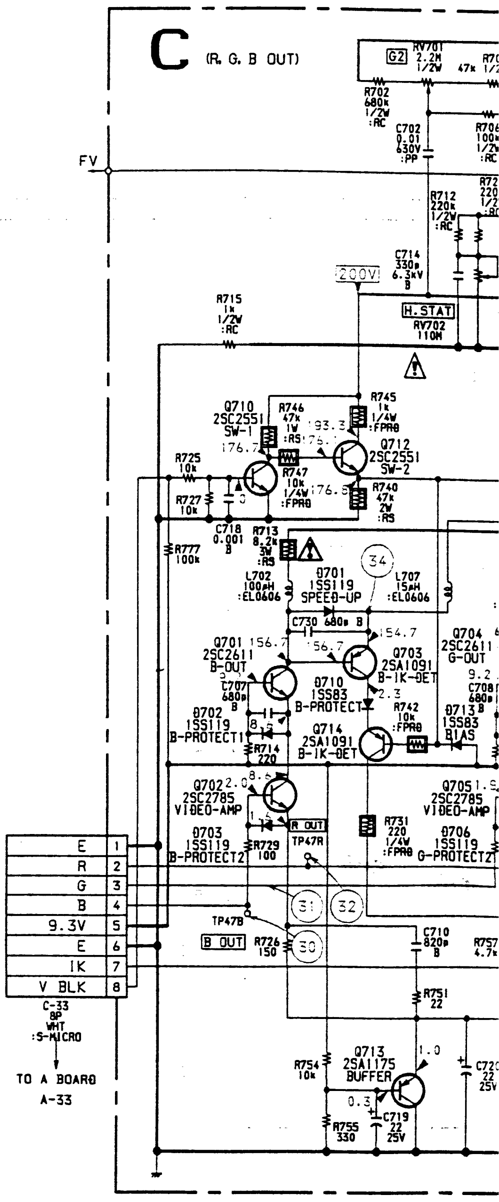

J403
M.OUT
AUDIO
VIDEO
S-VIDEO
(R)
(L/MONO)
J404
A.OUT
(R)
(L)
9.3V
Q402
2SC2785
C-BUFFER
Q408
2SC2785
V-BUFFER
Q416
2SC2785
BUFF
IC402
NJM2245S
Y-SW
Q409
2SC2785
Y-BUFFER
IC405
NJM-2233BS
V/S-SW
Q410
2SC2785
Y-BUFFER
Q492
2SC2785
BUFFER
Q491
2SC2785
Y/C-MIX
IC1401
NJM-2233BS
V/S-SW
U-4
8P
YEL (-L)
:S-MICRO
1 CV 1
2 E (A)
3 E (V)
4 E (V)
5 PV OUT
6 E (V)
7 CV OUT
8 E (V)

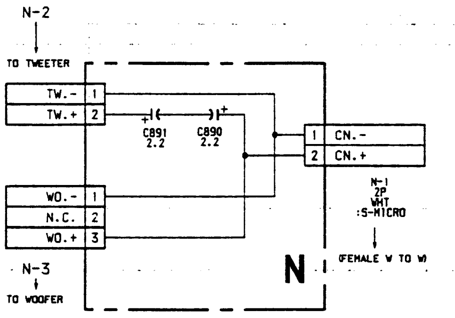
U BOARD WAVEFORM

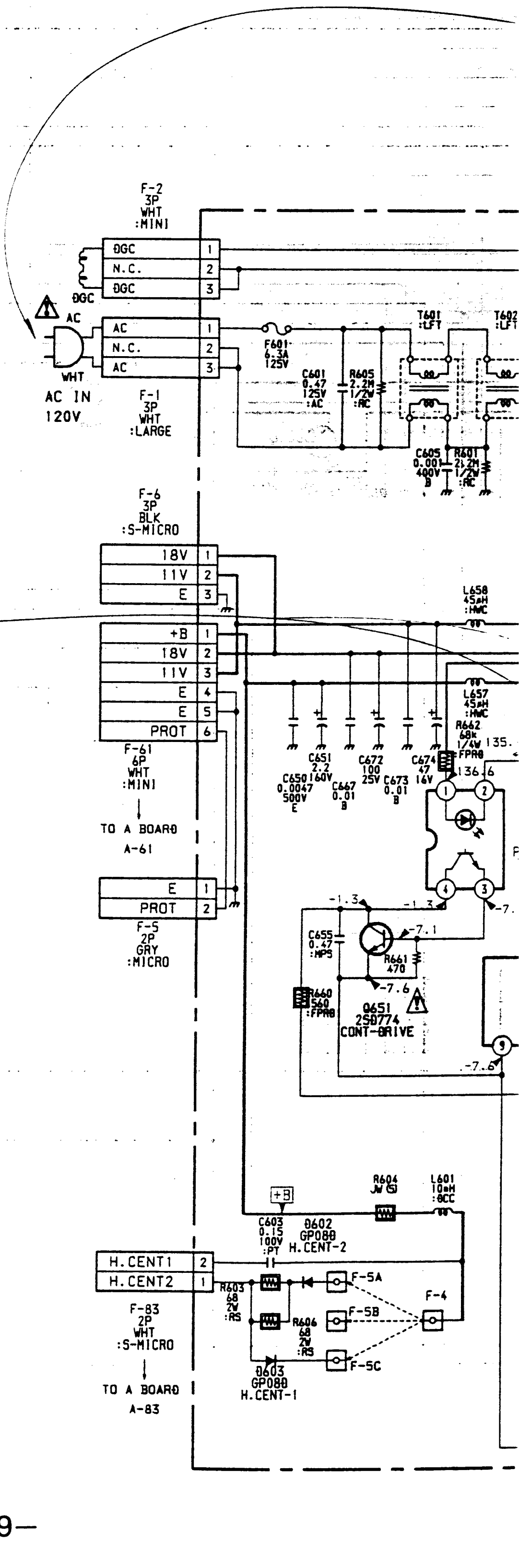

61
62 (S: IN)
63 (S: IN)
1.5Vp-p (H)
1.7Vp-p (H)
2.4Vp-p (H)

U BOARD IC444 CXA1114P

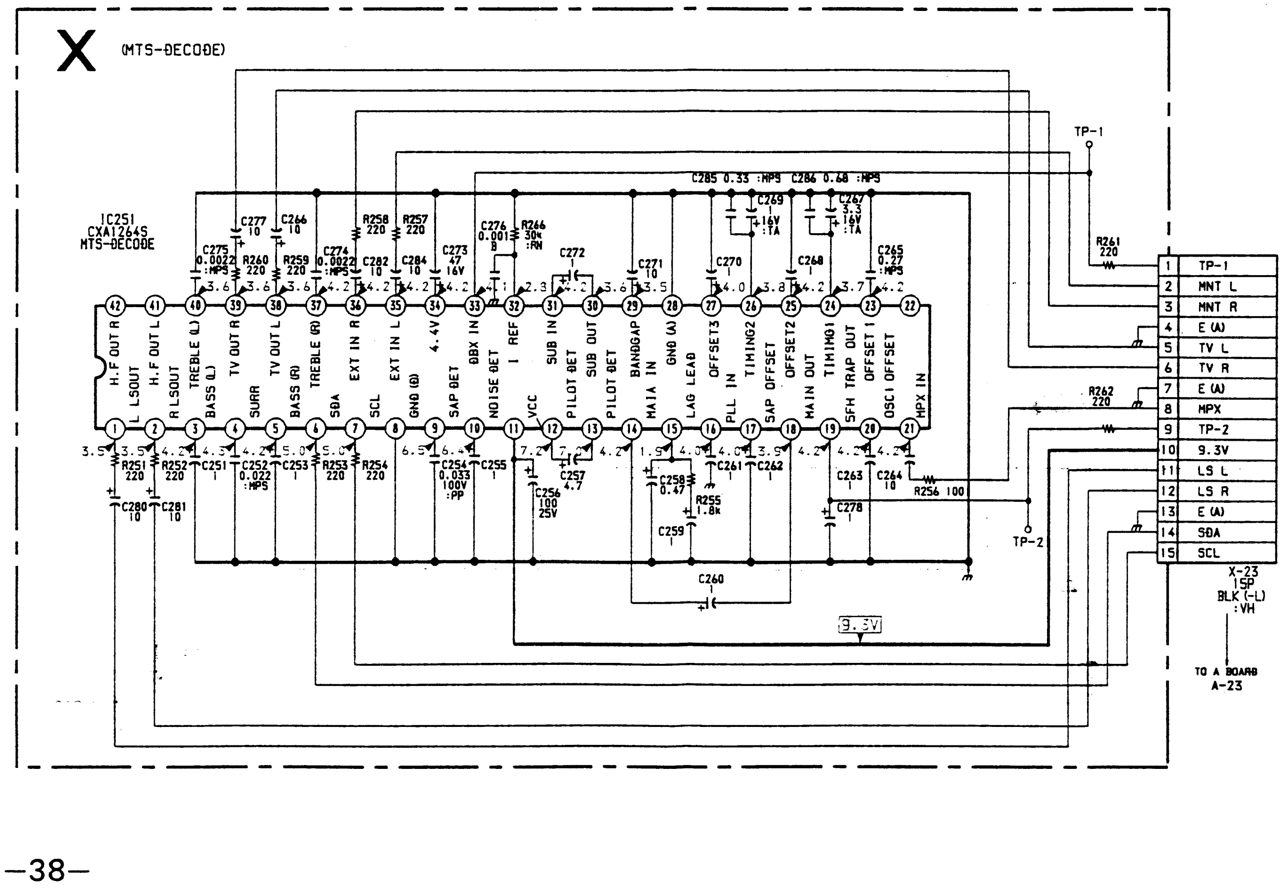

TV VIDEO IN 28
VIDEO 1 IN 2
VIDEO 2 IN 4
VIDEO 3 IN 6
Vcc 3
BIAS 1
TV AUDIO L IN 13
AUDIO 1L IN 7
AUDIO 2L IN 9
AUDIO 3L IN 11
VIDEO GND 27
AUDIO GND 5
TV AUDIO R IN 14
AUDIO 1R IN 8
AUDIO 2R IN 10
AUDIO 3R IN 12
SDA 22
SCL 21
DIGITAL GND 24
INTER-FACE
POWER ON RESET
23 TV VIDEO OUT
25 VIDEO 1 OUT
26 VIDEO 2 OUT
15 TV AUDIO L OUT
17 AUDIO 1L OUT
19 AUDIO 2L OUT
16 TV AUDIO R OUT
18 AUDIO 1R OUT
20 AUDIO 2R OUT

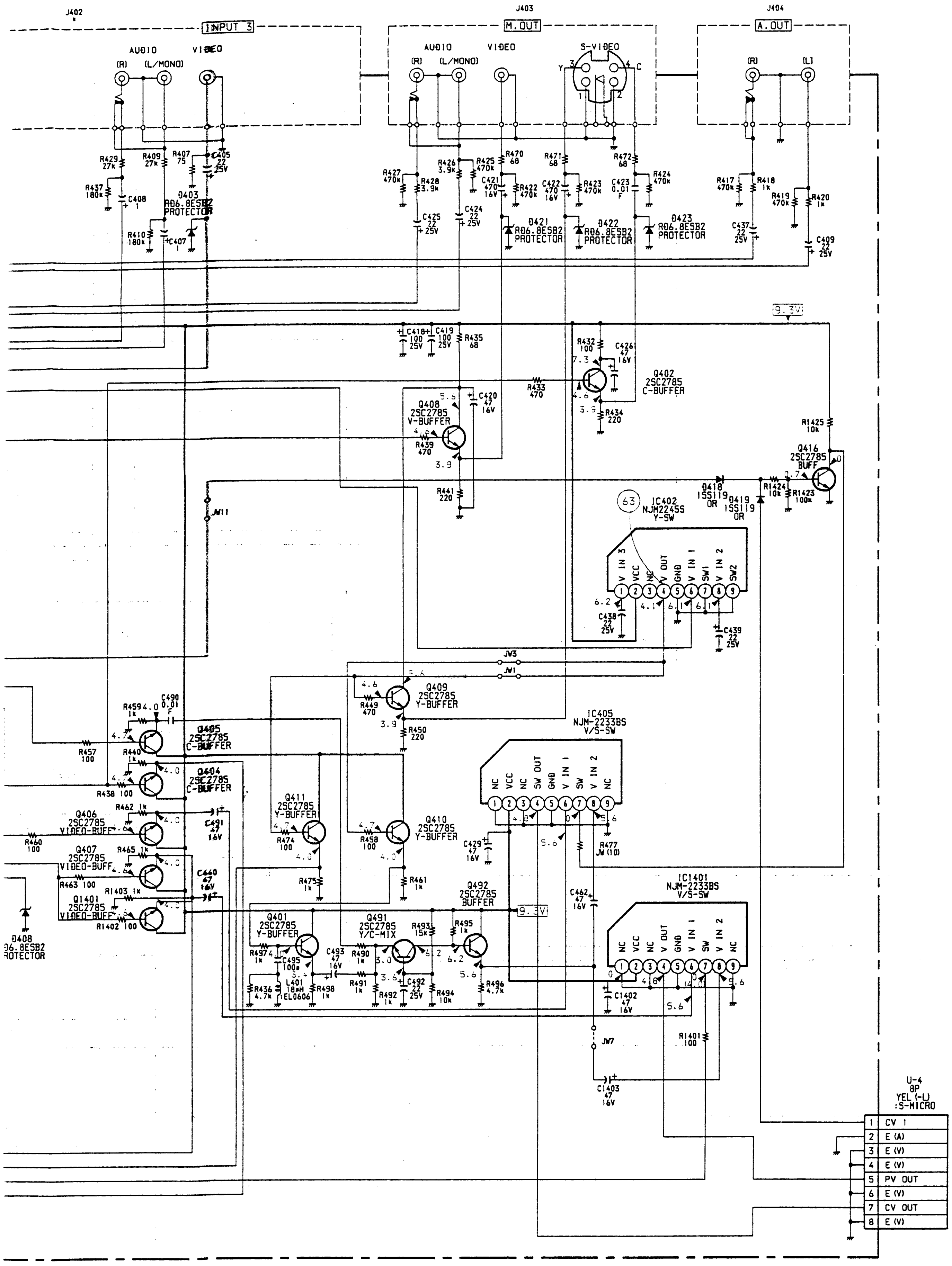

C
(R, G, B OUT)
FV
H.STAT
Q710
2SC2551
SW-1
Q712
2SC2551
SW-2
Q701
1SS119
SPEED-UP
Q701
2SC2611
B-OUT
Q703
2SA1091
B-IK-DET
Q704
2SC2611
G-OUT
Q702
2SC2785
VIDEO-AMP
Q705
2SC2785
VIDEO-AMP
Q713
2SA1175
BUFFER
1 E
2 R
3 G
4 B
5 9.3V
6 E
7 IK
8 V BLK
C-33
8P
WHT
:S-MICRO
TO A BOARD
A-33

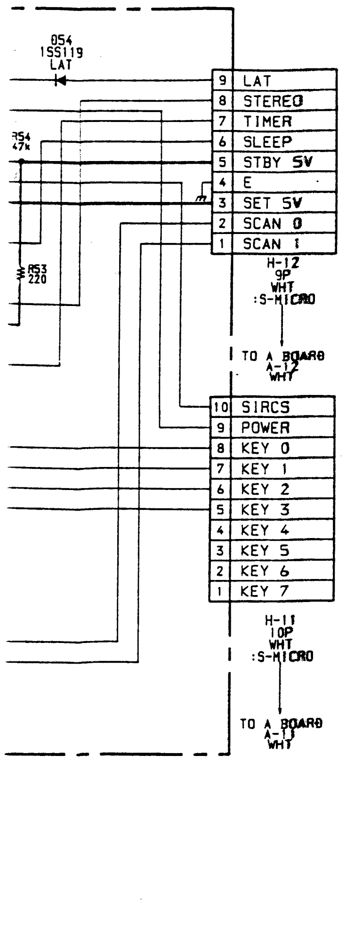

N-2
TO TWEETER
TW.-
TW.+
WO.-
N.C.
WO.+
N-3
TO WOOFER
1 CN.-
2 CN.+
N-1
2P
WHT
:S-MICRO
(FEMALE V TO W)
N


F-2
3P
WHT
:MINI
DGC
N.C.
DGC
AC
N.C.
AC
WHT
AC IN
120V
F-1
3P
WHT
:LARGE
F-6
3P
BLK
:S-MICRO
18V
11V
E
+B
18V
11V
E
E
PROT
F-61
6P
WHT
:MINI
TO A BOARD
A-61
E
PROT
F-5
2P
GRY
:MICRO
Q651
2SD774
CONT-DRIVE
Q602
GP08D
H.CENT-2
H.CENT1
H.CENT2
F-83
2P
WHT
:S-MICRO
TO A BOARD
A-83
Q603
GP08D
H.CENT-1
F-5A
F-5B
F-5C
F-4

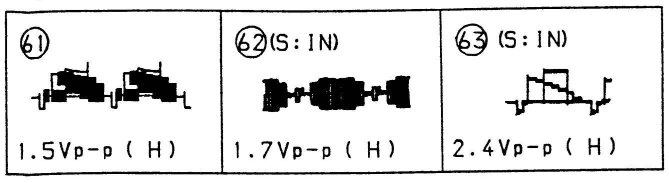
CAUTION
CONFIRM THAT THE VOLTAGE OF B+ MAX VOLTAGE IS WITHIN THE STANDARD VALUE WHEN REPLACING IC653 AND R663.


X
(MTS-DECODE)
IC251
CXA1264S
MTS-DECODE
TP-1
TP-2
1 TP-1
2 MNT L
3 MNT R
4 E (A)
5 TV L
6 TV R
7 E (A)
8 MPX
9 TP-2
10 9.3V
11 LS L
12 LS R
13 E (A)
14 SDA
15 SCL
X-23
15P
BLK (-L)
:VH
TO A BOARD
A-23
9.3V

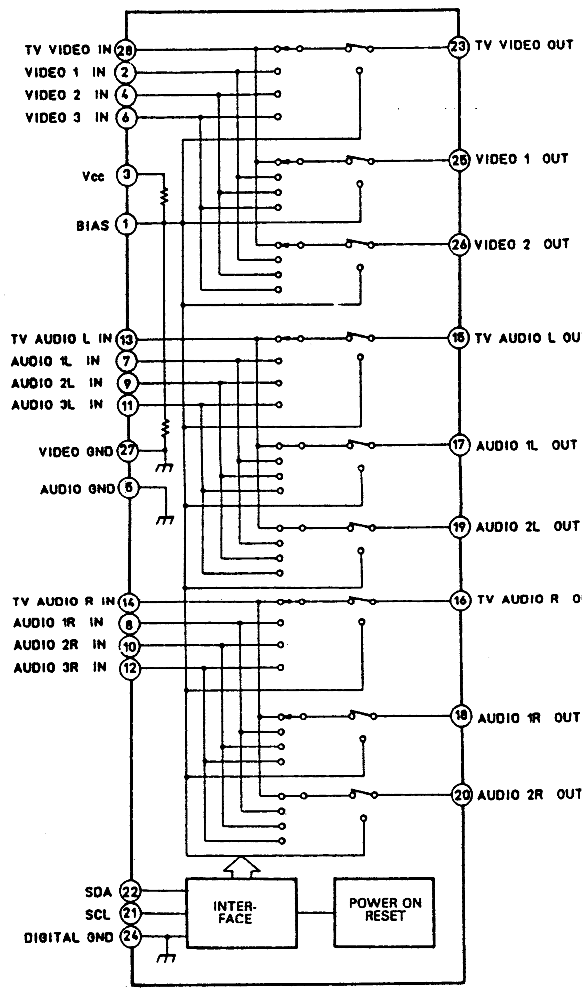

J402
INPUT 3
AUDIO
(R)
(L/MONO)
VIDEO
J403
M.OUT
S-VIDEO
J404
A.OUT
(R)
(L)
D403
RD6.8ESB2
PROTECTOR
D421
RD6.8ESB2
PROTECTOR
D422
RD6.8ESB2
PROTECTOR
D423
RD6.8ESB2
PROTECTOR
9.3V
Q402
2SC2785
C-BUFFER
Q408
2SC2785
V-BUFFER
Q416
2SC2785
BUFF
D418
1SS119
OR
D419
1SS119
OR
IC402
NJM2245S
Y-SW
63
JW1
JW3
Q409
2SC2785
Y-BUFFER
IC405
NJM-2233BS
V/S-SW
Q405
2SC2785
C-BUFFER
Q404
2SC2785
C-BUFFER
Q406
2SC2785
VIDEO-BUFF
Q407
2SC2785
VIDEO-BUFF
Q1401
2SC2785
VIDEO-BUFF
D408
RD6.8ESB2
PROTECTOR
Q411
2SC2785
Y-BUFFER
Q410
2SC2785
Y-BUFFER
Q401
2SC2785
Y-BUFFER
Q491
2SC2785
Y/C-MIX
Q492
2SC2785
BUFFER
L401
18uH
IC1401
NJM-2233BS
V/S-SW
JW7
C1403
47
16V
U-4
8P
YEL (-L)
:S-MICRO
1 CV 1
2 E (A)
3 E (V)
4 E (V)
5 PV OUT
6 E (V)
7 CV OUT
8 E (V)

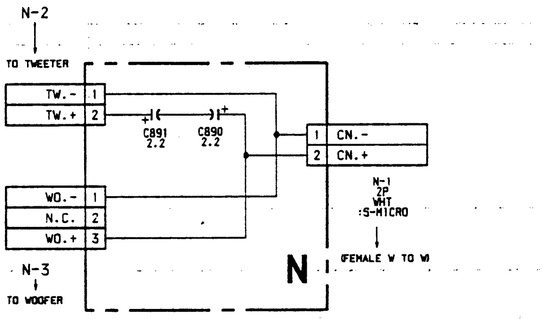

D54
1SS119
LAT
R54
47k
R53
220
9 LAT
8 STEREO
7 TIMER
6 SLEEP
5 STBY 5V
4 E
3 SET 5V
2 SCAN 0
1 SCAN 1
H-12
9P
WHT
:S-MICRO
TO A BOARD
A-12
WHT
10 SIRCS
9 POWER
8 KEY 0
7 KEY 1
6 KEY 2
5 KEY 3
4 KEY 4
3 KEY 5
2 KEY 6
1 KEY 7
H-11
10P
WHT
:S-MICRO
TO A BOARD
A-11
WHT

U BOARD WAVEFORM



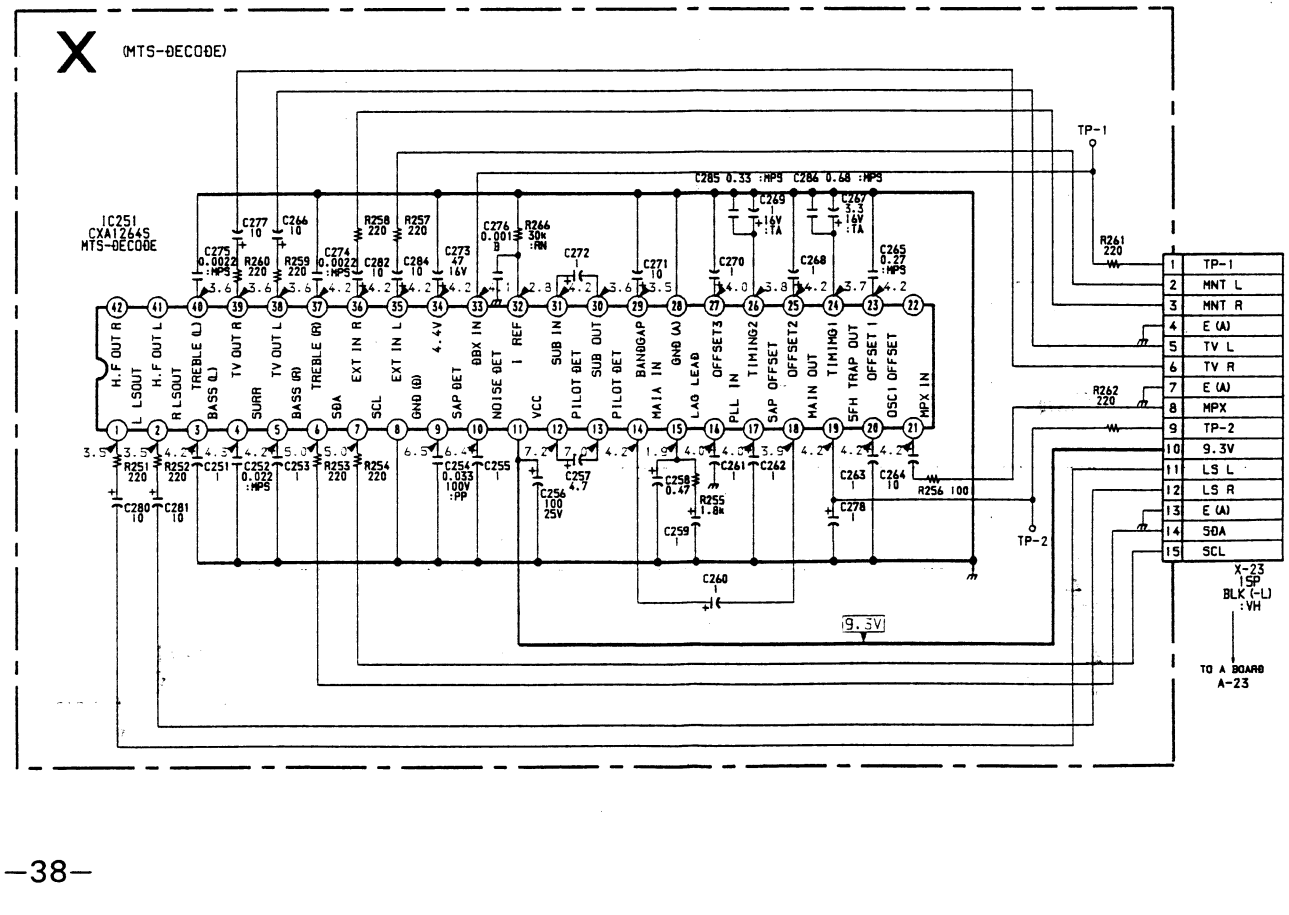
U BOARD IC444 CXA1114P

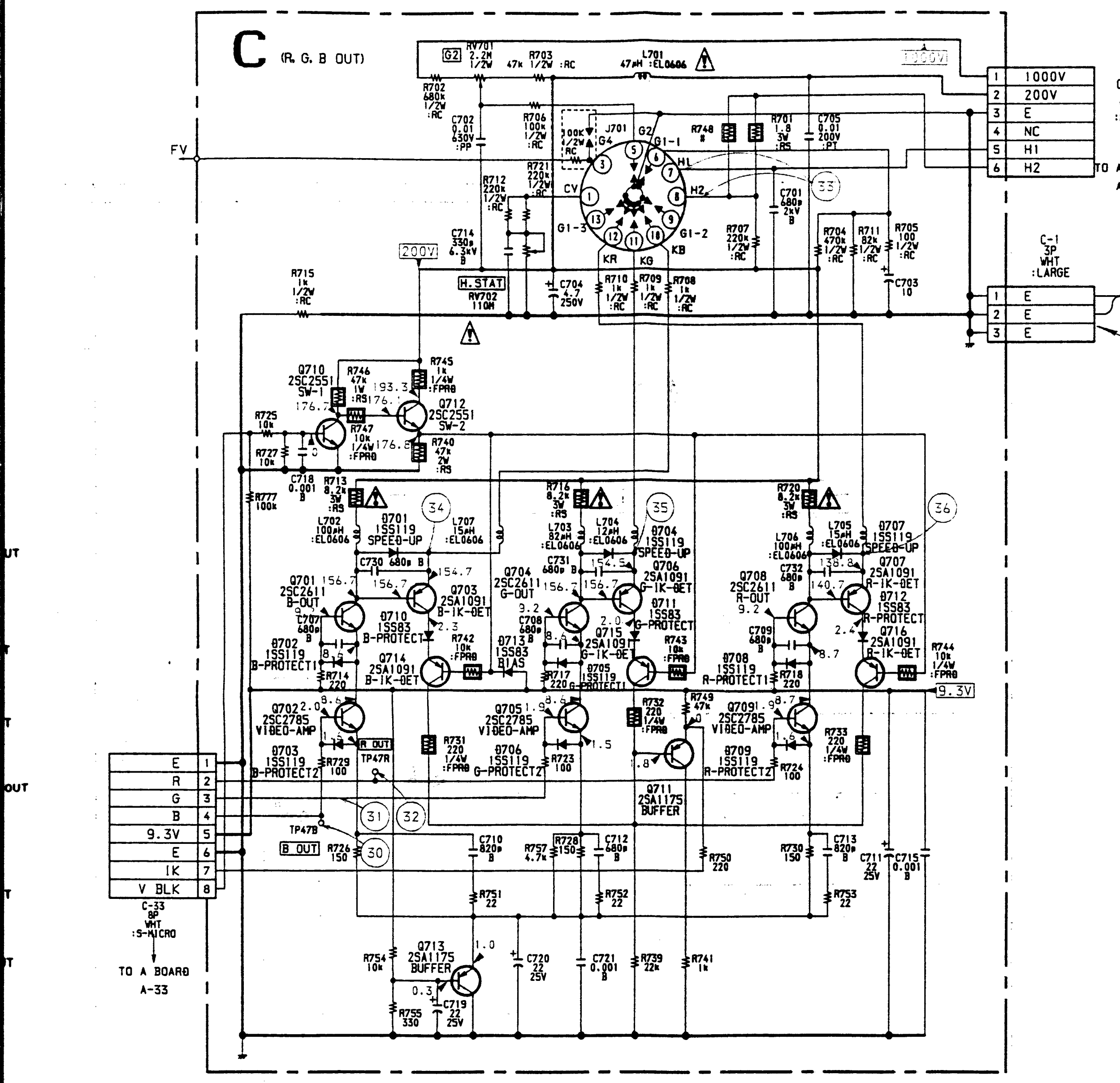

TV VIDEO IN 28
VIDEO 1 IN 2
VIDEO 2 IN 4
VIDEO 3 IN 6
Vcc 3
BIAS 1
TV AUDIO L IN 13
AUDIO 1L IN 7
AUDIO 2L IN 9
AUDIO 3L IN 11
VIDEO GND 27
AUDIO GND 5
TV AUDIO R IN 14
AUDIO 1R IN 8
AUDIO 2R IN 10
AUDIO 3R IN 12
SDA 22
SCL 21
DIGITAL GND 24
INTER-FACE
POWER ON RESET
23 TV VIDEO OUT
25 VIDEO 1 OUT
26 VIDEO 2 OUT
15 TV AUDIO L OUT
17 AUDIO 1L OUT
19 AUDIO 2L OUT
16 TV AUDIO R OUT
18 AUDIO 1R OUT
20 AUDIO 2R OUT

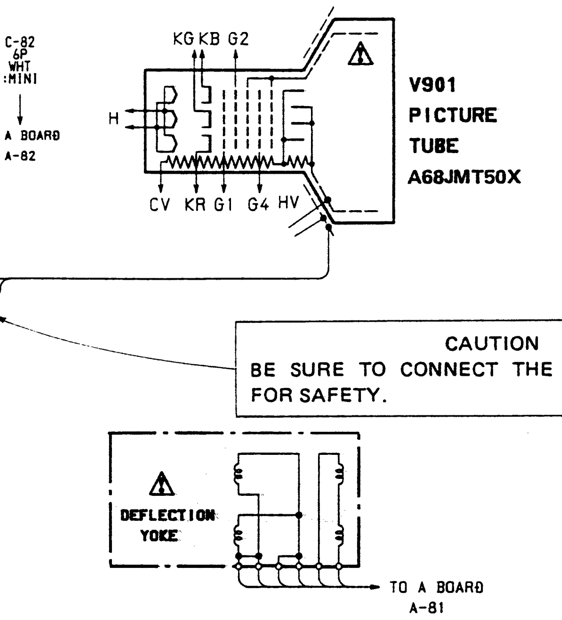

N-2
TO TWEETER
TW.- 1
TW.+ 2
C891
2.2
C890
2.2
1 CN.-
2 CN.+
N-1
2P
WHT
:S-MICRO
(FEMALE V TO W)
WO.- 1
N.C. 2
WO.+ 3
N-3
TO WOOFER
N

CAUTION

CONFIRM THAT THE VOLTAGE OF B+ MA
VOLTAGE IS WITHIN THE STANDARD VALU
WHEN REPLACING IC653 AND R663.

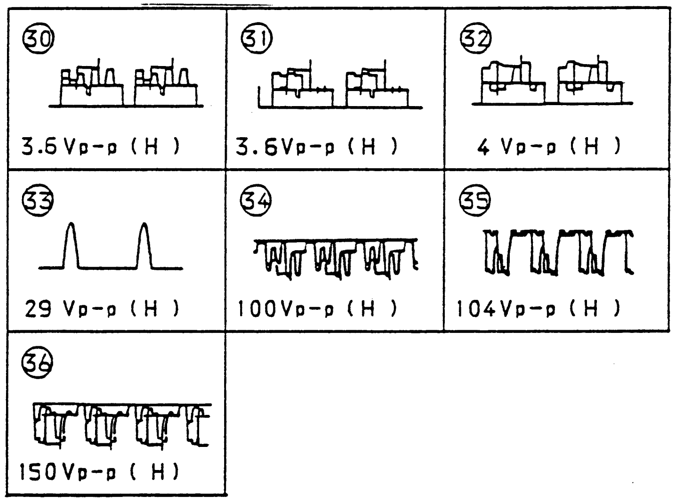

X
(MTS-DECODE)
IC251
CXA1264S
MTS-DECODE
TP-1
42 H.F OUT R
41 H.F OUT L
40 LSOUT
39 TREBLE (L)
38 TV OUT R
37 TV OUT L
36 TREBLE (R)
35 EXT IN R
34 EXT IN L
33 4.4V
32 DBX IN
31 I REF
30 SUB IN
29 SUB OUT
28 BANDGAP
27 GND (A)
26 LAG LEAD
25 OFFSET3
24 TIMING2
23 OFFSET1
22 MPX IN
1 RLSOUT
2 BASS (L)
3 SURR
4 BASS (R)
5 SDA
6 SCL
7 GND (D)
8 SAP DET
9 NOISE DET
10 VCC
11 PILOT DET
12 PILOT DET
13 MAIN IN
14 PLL IN
15 SAP OFFSET
16 OFFSET2
17 MAIN OUT
18 TIMING1
19 SFH TRAP OUT
20 OSC1 OFFSET
21
9.3V
TP-2
1 TP-1
2 MNT L
3 MNT R
4 E (A)
5 TV L
6 TV R
7 E (A)
8 MPX
9 TP-2
10 9.3V
11 LS L
12 LS R
13 E (A)
14 SDA
15 SCL
X-23
15P
BLK (-L)
:VH
TO A BOARD
A-23


C (R, G, B OUT)
1000V
200V
E
NC
H1
H2
C-82 6P WHT :MINI
TO A BOARD A-82
C-1 3P WHT :LARGE
E
R
G
B
9.3V
E
IK
V BLK
C-33 8P WHT :S-MICRO
TO A BOARD A-33
Q701 2SC2611 B-OUT
Q702 2SC2785 VIDEO-AMP
Q703 2SA1091 B-IK-DET
Q704 2SC2611 G-OUT
Q705 2SC2785 VIDEO-AMP
Q706 2SA1091 G-IK-DET
Q707 2SA1091 R-IK-DET
Q708 2SC2611 R-OUT
Q709 2SC2785 VIDEO-AMP
Q710 2SC2551 SW-1
Q711 2SA1175 BUFFER
Q712 2SC2551 SW-2
Q713 2SA1175 BUFFER
Q714 2SA1091 B-IK-DET
Q715 2SA1091 G-IK-DET
Q716 2SA1091 R-IK-DET
H.STAT
9.3V
200V
G2
FV

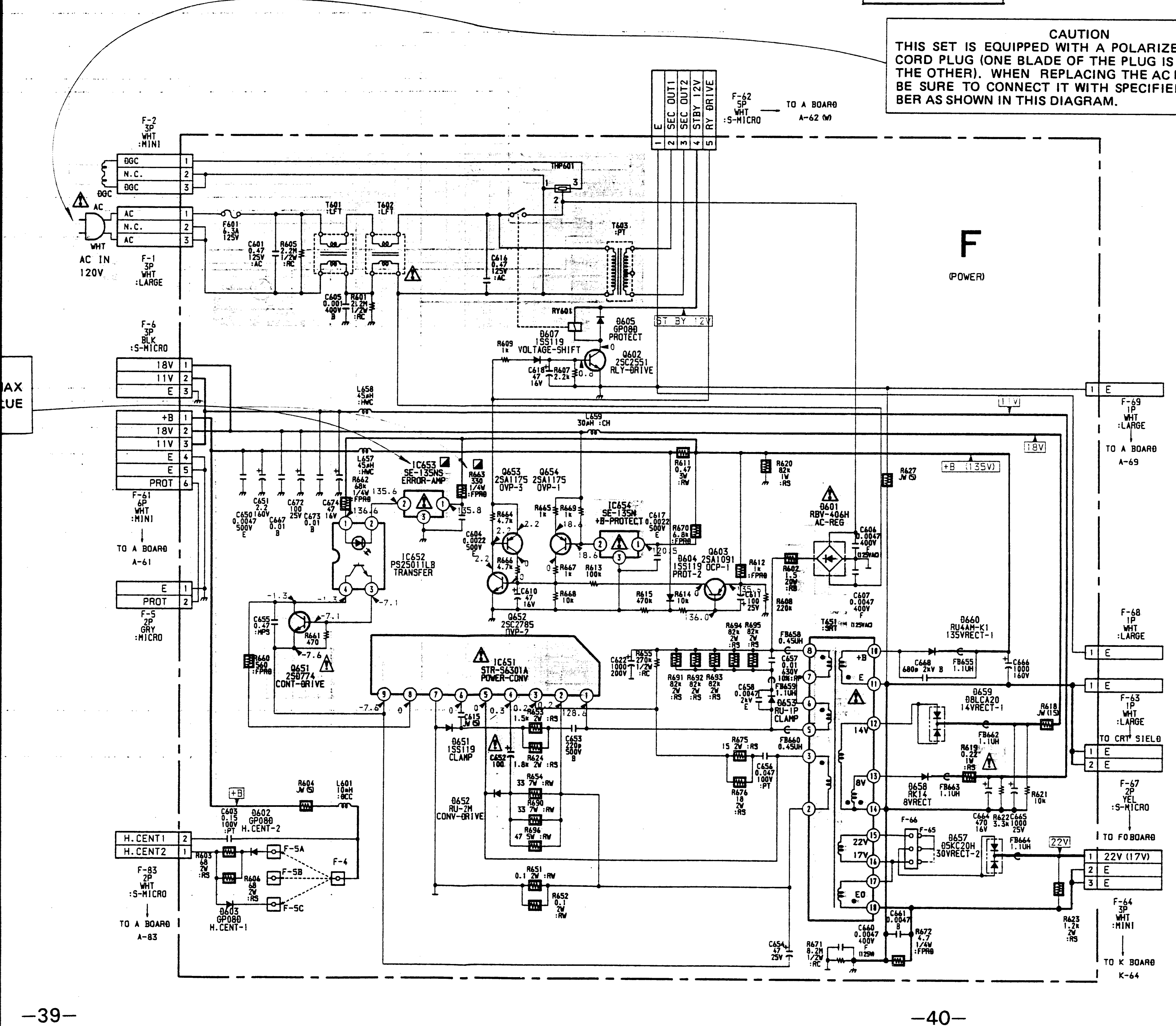

KG KB G2
H
V901
PICTURE
TUBE
A68JMT50X
CV KR G1 G4 HV
DEFLECTION YOKE
TO A BOARD A-81

CAUTION
BE SURE TO CONNECT THE CONNECTOR C-1 FOR SAFETY.

C BOARD WAVEFORM


㉚
3.6Vp-p (H)
㉛
3.6Vp-p (H)
㉜
4 Vp-p (H)
㉝
29 Vp-p (H)
㉞
100Vp-p (H)
㉟
104Vp-p (H)
㊱
150Vp-p (H)

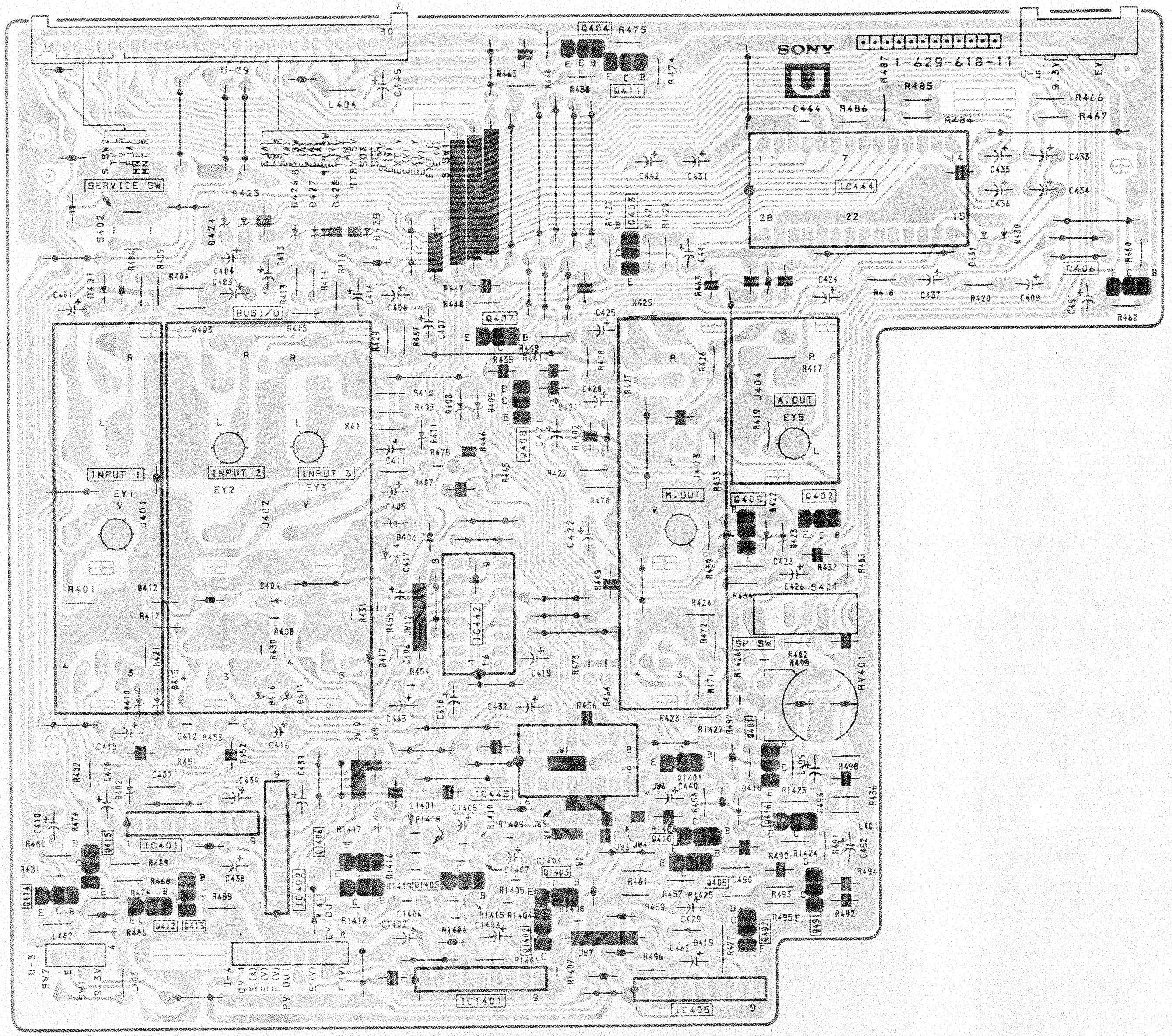
CAUTION
THIS SET IS EQUIPPED WITH A POLARIZED AC POWER CORD PLUG (ONE BLADE OF THE PLUG IS WIDER THAN THE OTHER). WHEN REPLACING THE AC POWER CORD. BE SURE TO CONNECT IT WITH SPECIFIED PART NUMBER AS SHOWN IN THIS DIAGRAM.


F (POWER)
F-2 3P WHT :MINI
DGC
N.C.
DGC
AC
N.C.
AC
AC IN 120V
F-1 3P WHT :LARGE
F-6 3P BLK :S-MICRO
18V
11V
E
+B
18V
11V
E
E
PROT
F-61 6P WHT :MINI
TO A BOARD A-61
E
PROT
F-5 2P GRY :MICRO
H.CENT1
H.CENT2
F-83 2P WHT :S-MICRO
TO A BOARD A-83
E
SEC OUT1
SEC OUT2
STBY 12V
RY DRIVE
F-62 5P WHT :S-MICRO
TO A BOARD A-62
IC651 STR-S6301A POWER-CONV
IC652 PS2501-1LB TRANSFER
IC653 SE-135NS ERROR-AMP
IC654 SE-135N +B-PROTECT
Q601 RBV-406H AC-REG
Q602 2SC2551 RLY-DRIVE
Q605 GP08D PROTECT
Q607 1SS119 VOLTAGE-SHIFT
Q651 2SD774 CONT-DRIVE
Q652 2SC2785 OVP-2
Q653 2SA1175 OVP-3
Q654 2SA1175 OVP-1
Q660 RU4AM-K1 135VRECT-1
Q659 D8LCA20 14VRECT-1
Q658 RK14 8VRECT
Q657 D5KC20H 30VRECT-2
+B (135V)
18V
11V
22V
ST BY 12V
F-69 1P WHT :LARGE
TO A BOARD A-69
F-68 1P WHT :LARGE
F-63 1P WHT :LARGE
TO CRT SIELD
F-67 2P YEL :S-MICRO
TO FO BOARD
22V (17V)
E
E
F-64 3P WHT :MINI
TO K BOARD K-64
F-4
F-5A
F-5B
F-5C

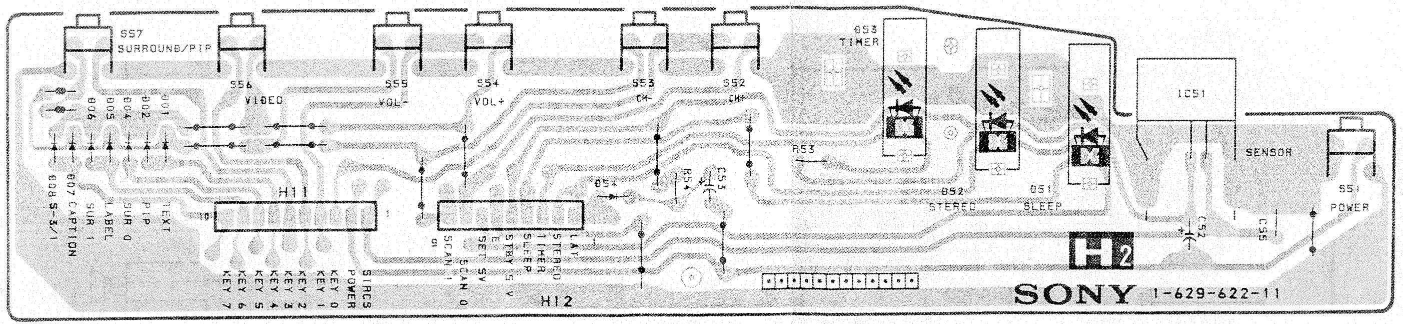
U [VIDEO SW, AUDIO SW, Y/C SW, LOGIC]

H2 [REMOCON RECEIVER] **N**

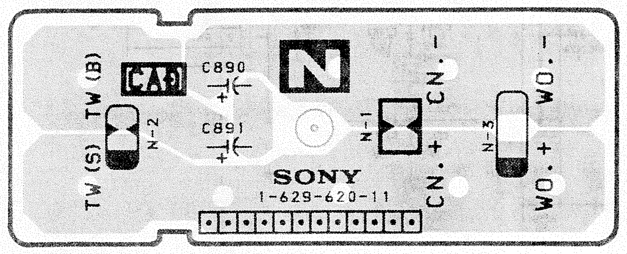
– U Board –


SONY
U
1-629-618-11
SERVICE SW
BUS I/O
IC444
INPUT 1
INPUT 2
INPUT 3
EY1
EY2
EY3
EY5
J401
J402
J403
J404
M.OUT
A.OUT
SP SW
RV401
IC442
IC443
IC401
IC402
IC1401
IC405

– H2 Board –

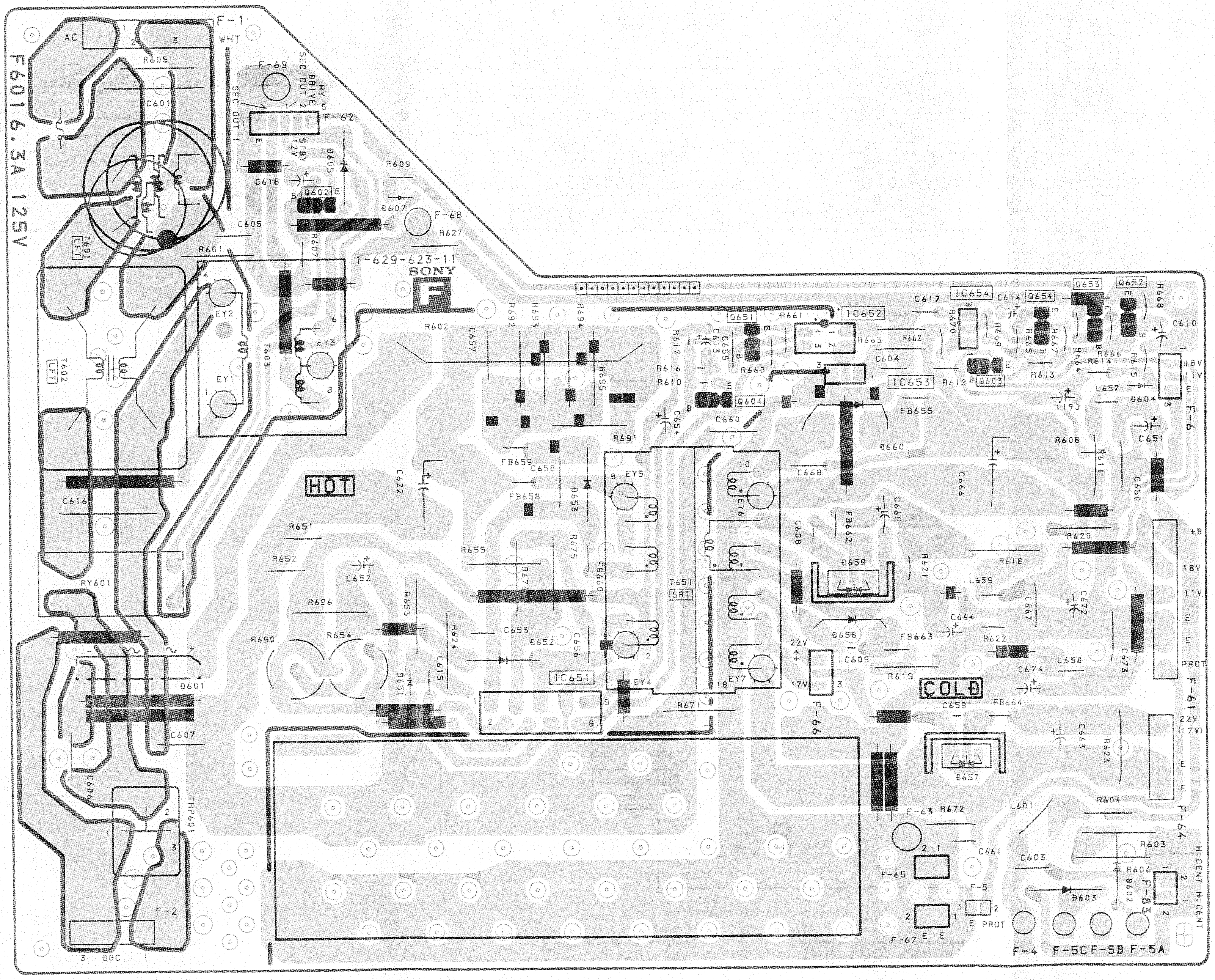

S57 SURROUND/PIP
S56 VIDEO
S55 VOL-
S54 VOL+
S53 CH-
S52 CH+
D53 TIMER
D52 STEREO
D51 SLEEP
IC51
SENSOR
S51 POWER
H11
H12
H2
SONY 1-629-622-11

– N Board –

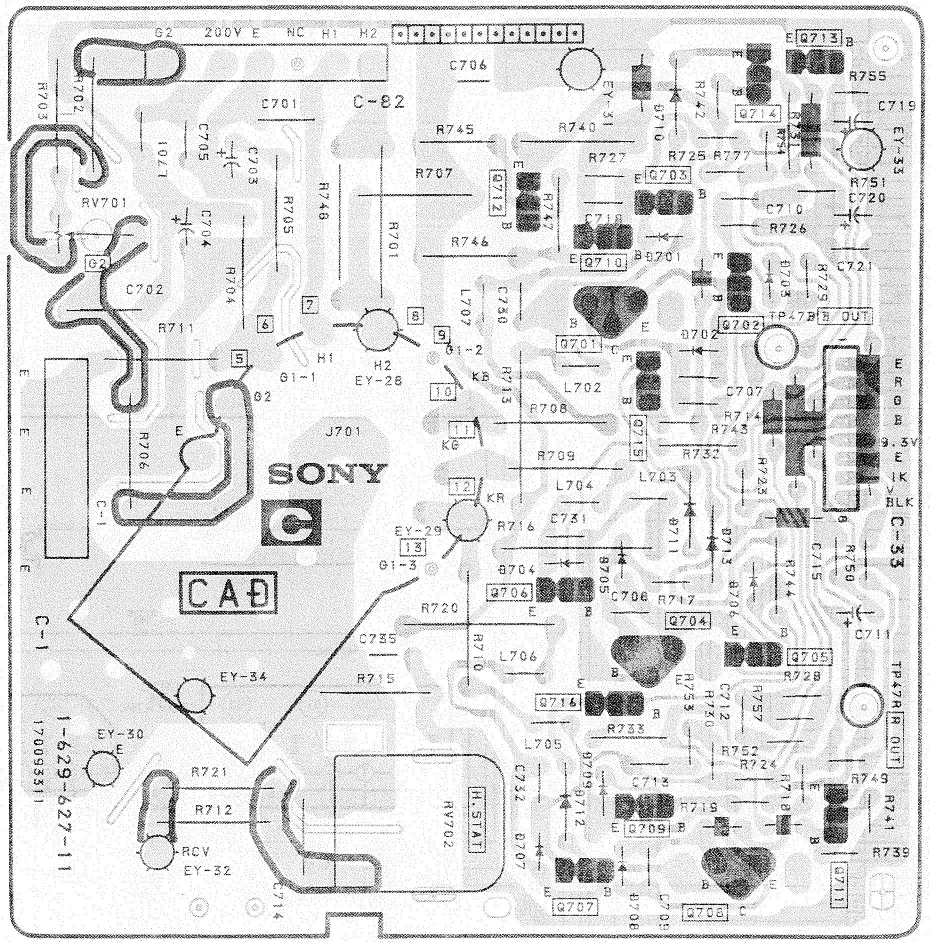

N
C890
C891
TW (B)
TW (S)
N-2
N-1
N-3
CN. -
CN. +
WO. -
WO. +
SONY
1-629-620-11

F [POWER] **C** [R·G·B OUT] **X** [MTS-DECODE]

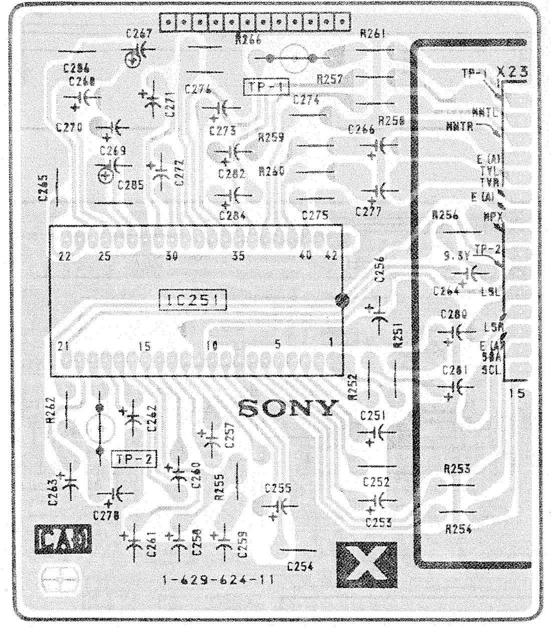
– F Board –

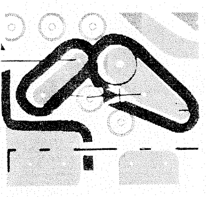

F601 6.3A 125V
AC
F-1
WHT
F-69
F-62
1-629-623-11
SONY
F
HOT
COLD
IC651
IC652
IC653
IC654
T651 SRT
RY601
THP601
F-2
F-63
F-65
F-67
F-5
PROT
F-4
F-5C
F-5B
F-5A
F-6
F-61
F-64
F-66
F-68

– C Board –


G2
200V
E
NC
H1
H2
C-82
J701
SONY
C
CAD
1-629-627-11
RV701
RV702
H.STAT
EY-26
EY-29
EY-30
EY-31
EY-32
EY-33
EY-34
C-1
C-33
TP47B B OUT
TP47R R OUT

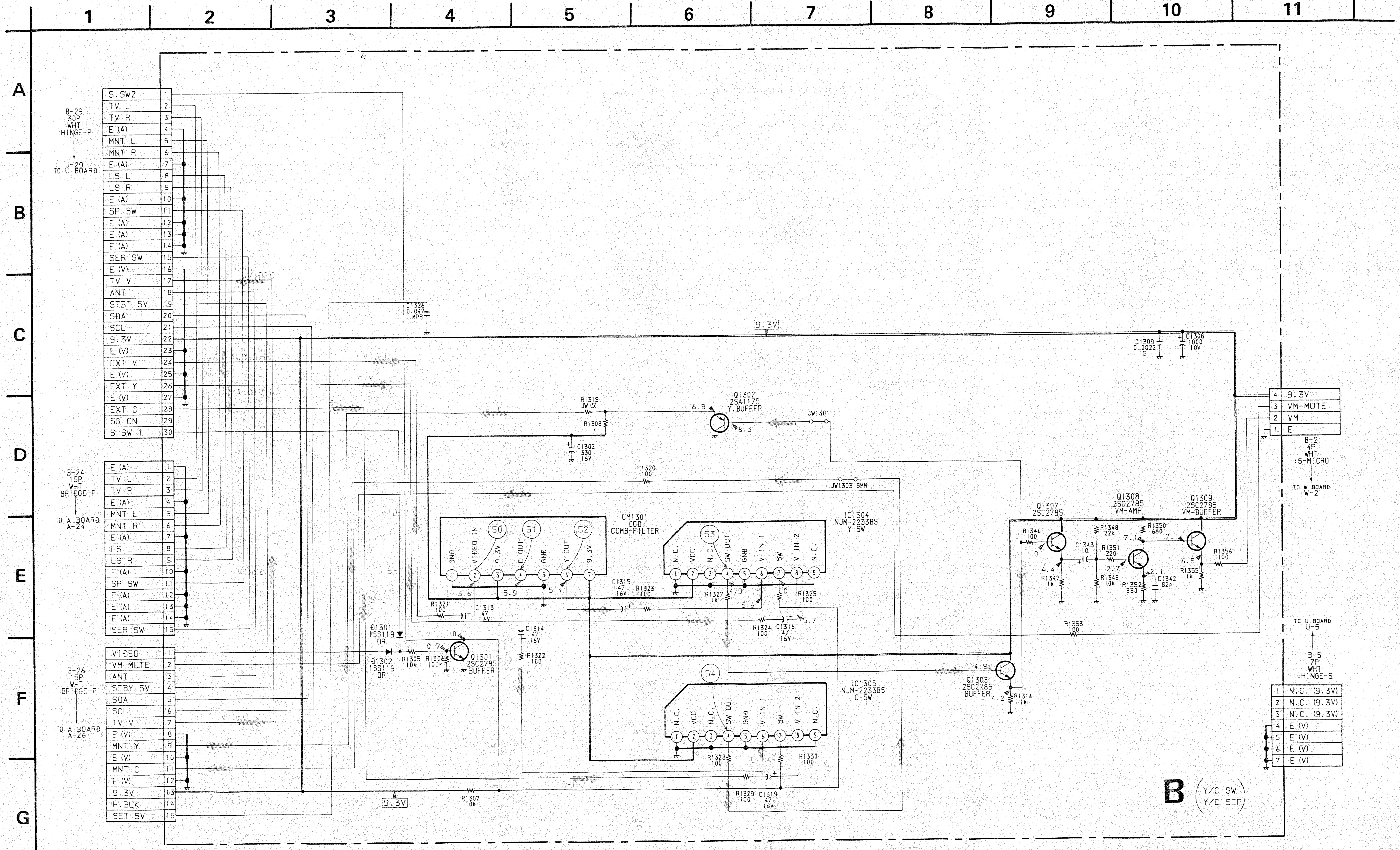
– X Board –


IC251
SONY
X23
TP-1
TP-2
CAD
1-629-624-11
X

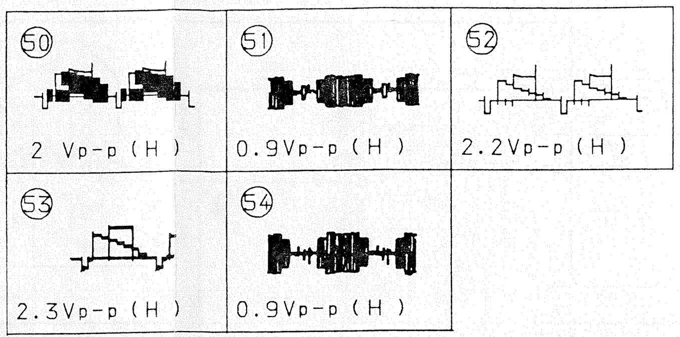


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

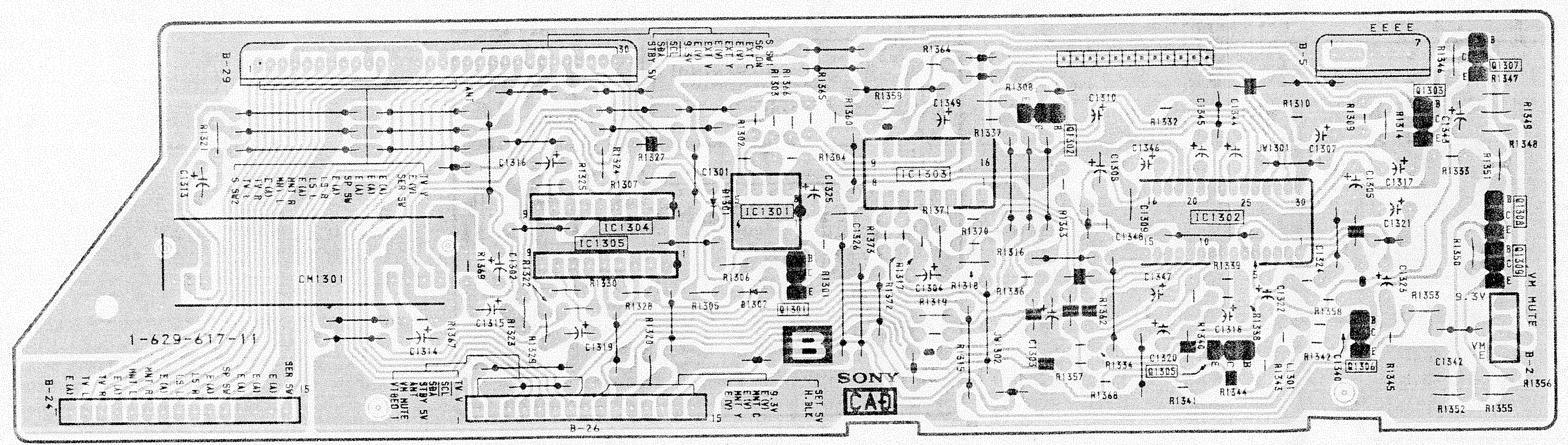
B [Y/C CONT, D/A CONV]
[Y/C SW]


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
B-29 30P WHT :HINGE-P
U-29 TO U BOARD
S.SW2
TV L
TV R
E (A)
MNT L
MNT R
LS L
LS R
SP SW
SER SW
E (V)
TV V
ANT
STBT 5V
SDA
SCL
9.3V
EXT V
EXT Y
EXT C
SG ON
S SW 1
B-24 15P WHT :BRIDGE-P
TO A BOARD A-24
B-26 15P WHT :BRIDGE-P
TO A BOARD A-26
VIDEO 1
VM MUTE
STBY 5V
MNT Y
MNT C
H.BLK
SET 5V
9.3V
C1326 0.047 MPS
R1319 JW(5)
R1308 1k
C1302 330 16V
Q1302 2SA1175 Y.BUFFER
JW1301
R1320 100
JW1303 5MM
CM1301 CCD COMB-FILTER
IC1304 NJM-2233BS Y-SW
IC1305 NJM-2233BS C-SW
GND
VIDEO IN
9.3V
C OUT
Y OUT
N.C.
VCC
SW OUT
V IN 1
SW
V IN 2
(50)
(51)
(52)
(53)
(54)
D1301 1SS119 OR
D1302 1SS119 OR
Q1301 2SC2785 BUFFER
R1305 10k
R1306 100k
R1321 100
C1313 47 16V
C1314 47 16V
R1322 100
C1315 47 16V
R1323 100
R1327 1k
R1324 100
C1316 47 16V
R1325 100
R1328 100
R1330 100
R1329 100
C1319 47 16V
R1307 10k
Q1303 2SC2785 BUFFER
R1314 1k
R1353 100
Q1307 2SC2785
Q1308 2SC2785 VM-AMP
Q1309 2SC2785 VM-BUFFER
R1346 100
R1347 1k
R1348 22k
C1343 10
R1351 220
R1349 10k
R1350 680
R1352 330
C1342 82p
R1355 1k
R1356 100
C1309 0.0022 B
C1308 1000 10V
9.3V
VM-MUTE
VM
E
B-2 4P WHT :S-MICRO
TO W BOARD W-2
TO U BOARD U-5
B-5 7P WHT :HINGE-S
N.C. (9.3V)
E (V)
B (Y/C SW Y/C SEP)

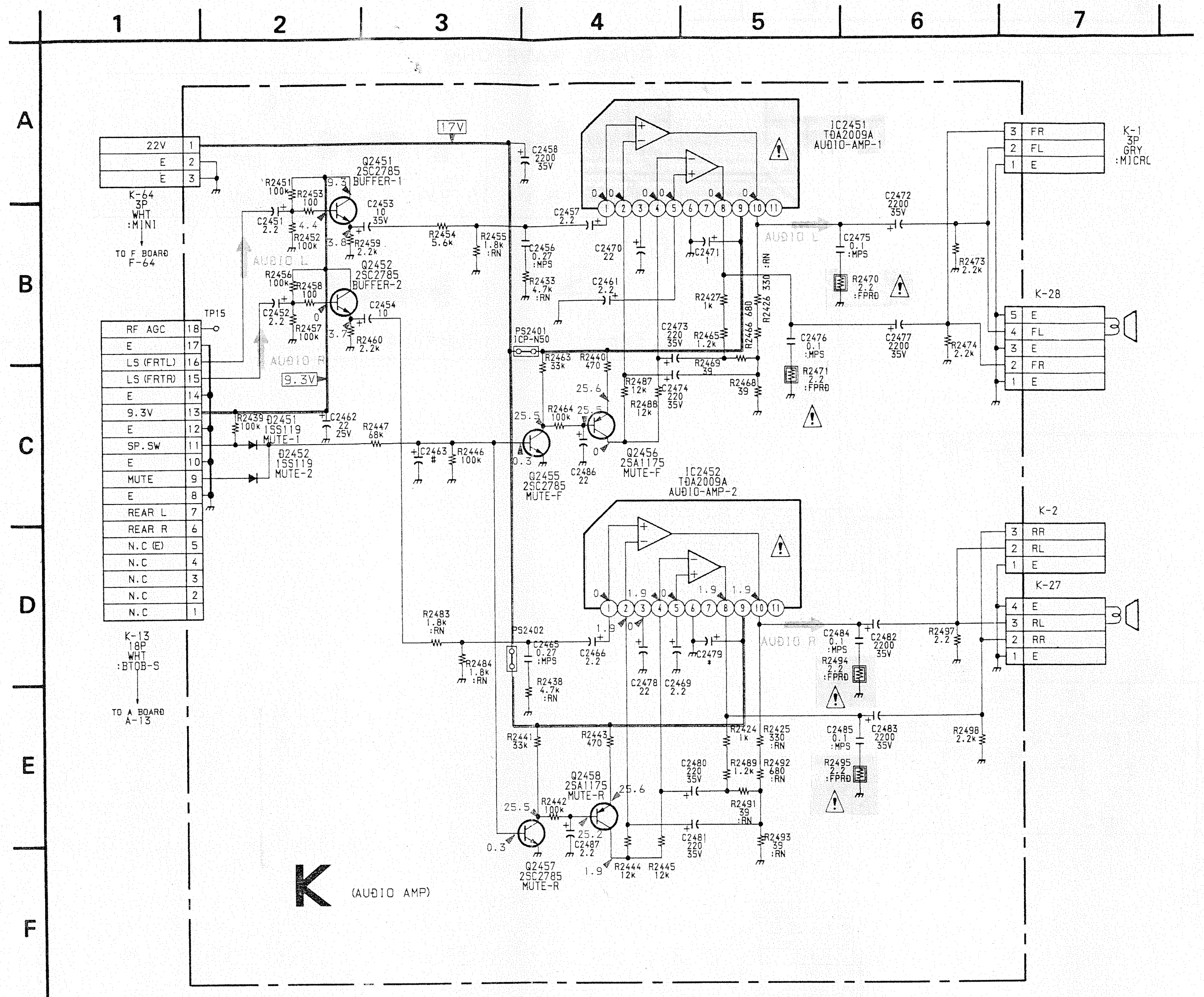
B BOARD WAVEFORM



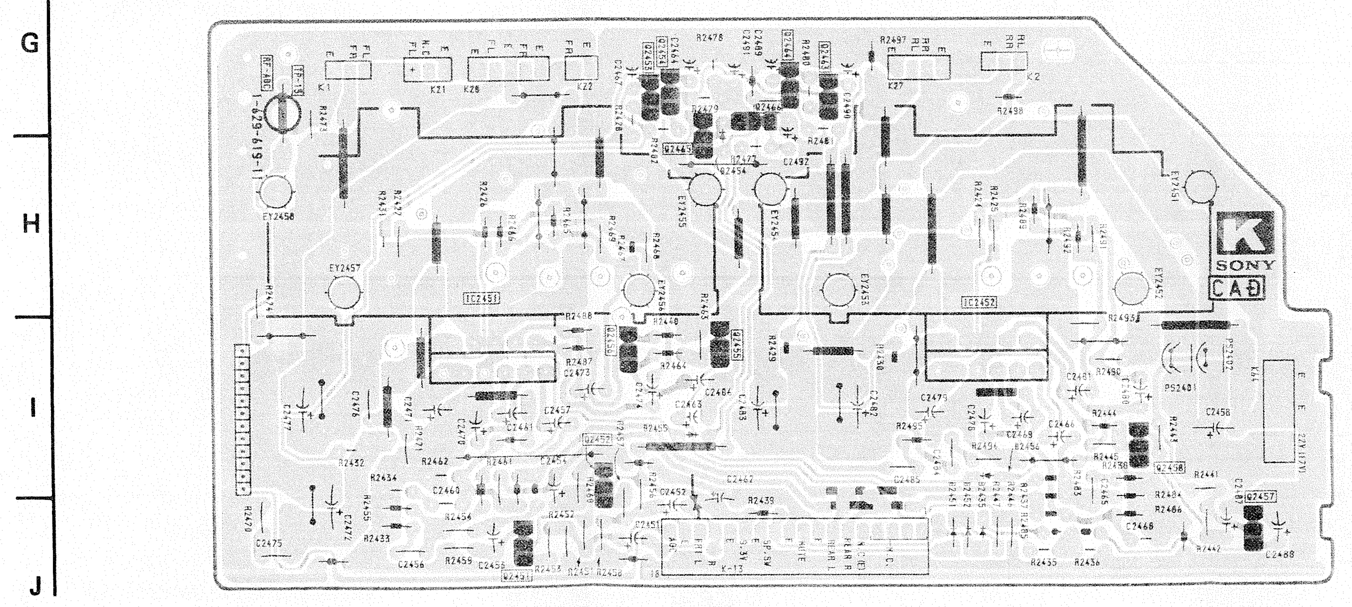
– B Board –


H
I
J
B-29
B-24
B-26
B-5
B-2
CM1301
IC1301
IC1302
IC1303
IC1304
IC1305
1-629-617-11
SONY
CAD
B
9.3V
VM MUTE

K [AUDIO AMP]

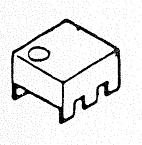

1
2
3
4
5
6
7
A
B
C
D
E
F
22V 1
E 2
E 3
K-64 3P WHT :MINI
TO F BOARD F-64
17V
Q2451 2SC2785 BUFFER-1
Q2452 2SC2785 BUFFER-2
AUDIO L
AUDIO R
9.3V
IC2451 TDA2009A AUDIO-AMP-1
IC2452 TDA2009A AUDIO-AMP-2
TP15
RF AGC 18
E 17
LS (FRTL) 16
LS (FRTR) 15
E 14
9.3V 13
E 12
SP.SW 11
E 10
MUTE 9
E 8
REAR L 7
REAR R 6
N.C (E) 5
N.C 4
N.C 3
N.C 2
N.C 1
K-13 18P WHT :BTOB-S
TO A BOARD A-13
D2451 1SS119 MUTE-1
D2452 1SS119 MUTE-2
PS2401 ICP-N50
PS2402
Q2455 2SC2785 MUTE-F
Q2456 2SA1175 MUTE-F
Q2457 2SC2785 MUTE-R
Q2458 2SA1175 MUTE-R
K-1 3P GRY :MICRL
3 FR
2 FL
1 E
K-28
5 E
4 FL
3 E
2 FR
1 E
K-2
3 RR
2 RL
1 E
K-27
4 E
3 RL
2 RR
1 E
K (AUDIO AMP)

– K Board –

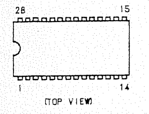

G
H
I
J
IC2451
IC2452
PS2401
K-13
K
SONY
CAÐ

6-5. SEMICONDUCTORS

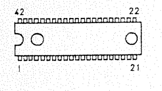
BX-1398



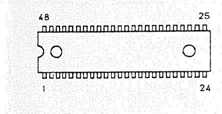
CXA1114P


28
15
1
14
(TOP VIEW)

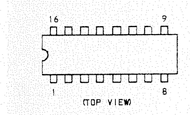
CXA1264S



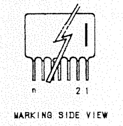
CXA1313S
MB88201-638L



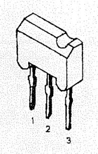
CXA1315P


16
9
1
8
(TOP VIEW)

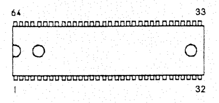
CXA1334S


n
2 1
MARKING SIDE VIEW

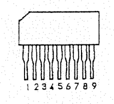
MN1280-S



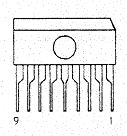
M-37100M8



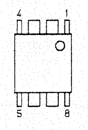
NJM-2233BS



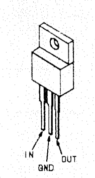
NJM-2245S



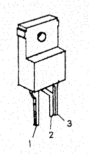
PCD8582



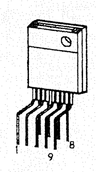
RC7812FA
μPC7805H



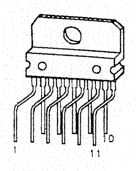
SE-135N
SE-135NS



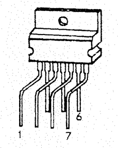
STR-S6301A



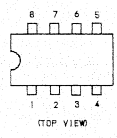
TDA2009A



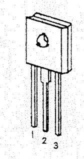
TDA8172



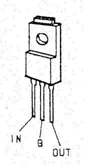
μPC393C


8 7 6 5
1 2 3 4
(TOP VIEW)

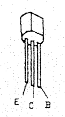
μPC78N05H



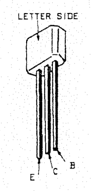
μPC7893HF



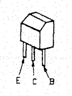
2SA1091
2SC2551



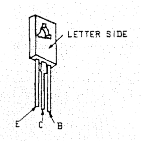
2SA1175
2SC2785
2SC2785-HFE


LETTER SIDE
E
C
B

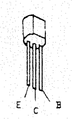
2SD774



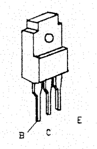
2SC2611
2SC2688-LK


LETTER SIDE
E
C
B

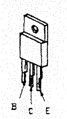
2SC2230A



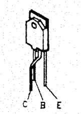
2SC3298B-Y



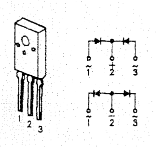
2SD1406



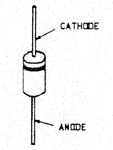
2SD1941-06



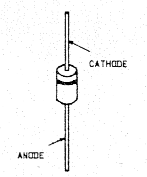
D5KC40H
D8LCA20



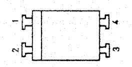
EL1Z
ES1F
RGP15J
1SS83


CATHODE
ANODE

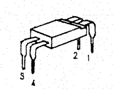
ERC25-06S
ERC81-004
RU-1P
RU-3AM


CATHODE
ANODE

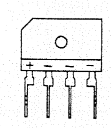
PC817-C



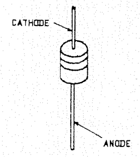
PS2501-1LB



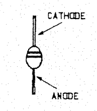
RBV-406H-01



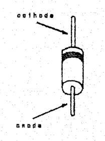
RD4.7ES-B2
RD5.6ES-B2
RD6.8ES-B2
RD8.2ES-B2
RD9.1ES-B2
RD10ES-B2
RD33ES-B2
1SS119
1SV113


CATHODE
ANODE

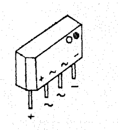
RG3G-5007L
U05G


CATHODE
ANODE

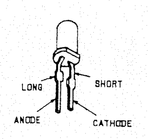
RU-4DS


cathode
anode

S1VB40



TLR124


LONG
SHORT
ANODE
CATHODE

SECTION 7
EXPLODED VIEWS

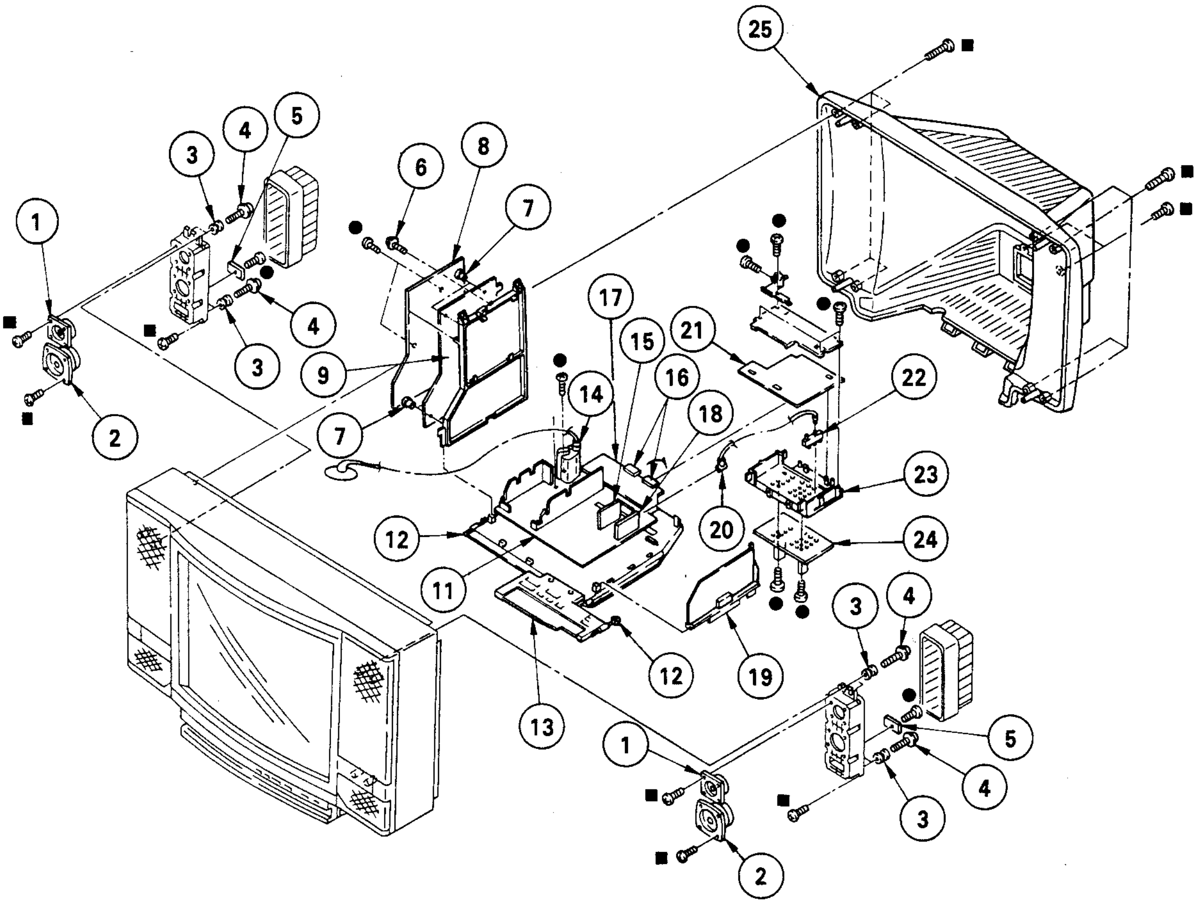
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

7-1. CHASSIS

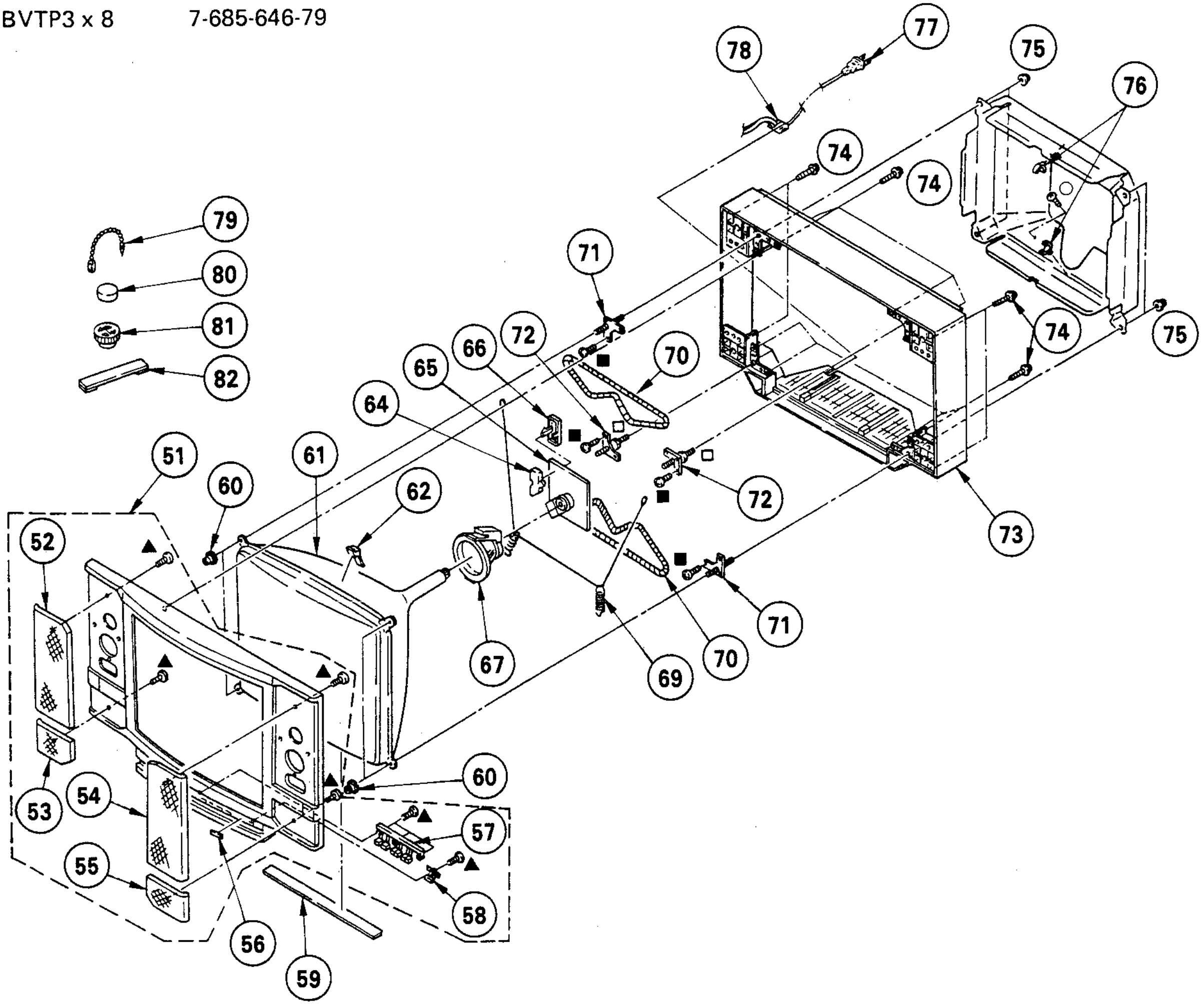
●: BVTP3 x 12 7-685-648-79
■: BVTP4 x 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	1-544-095-11	SPEAKER	
2	1-503-917-11	SPEAKER	
3	4-374-745-11	CUSHION (A)	
4	4-384-096-01	SCREW (4X16), TAPPING, +P	
5	*1-629-620-11	N BOARD	
6	4-388-477-01	SCREW (3X16), TAPPING	
7	3-531-576-31	RIVET (DIA. 3), NYLON	
8	*A-1245-453-A	F BOARD, COMPLETE	
9	*1-629-628-11	FO BOARD	
11	*A-1296-567-A	A BOARD, COMPLETE	15
12	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
13	*1-629-622-11	H2 BOARD	
14 ⚠	.1-439-455-11	TRANSFORMER ASSY, FLYBACK (NX-2300)	
15	*1-629-624-11	X BOARD	
16	*1-568-507-11	CONNECTOR, BRIDGE 15P	
17	*A-1135-560-A	B BOARD, COMPLETE	
18 ⚠	.1-463-771-11	TUNER, ET (BTP-201A)	
19	*A-1385-052-A	K BOARD, COMPLETE	
20	*1-556-945-21	CABLE, P-P	
21	*A-1394-173-A	U BOARD, COMPLETE	
22 ⚠	.1-417-177-11	SELECTOR, ANTENNA (AS-1)	
23	4-393-419-01	TERMINAL BOARD, ANTENNA	
24	4-393-414-01	LABEL, ANTENNA	
25	4-393-629-01	COVER, REAR	

7-2. PICTURE TUBE

■ : BVTP4 x 16 7-685-663-79
▲ : BVTP3 x 16 7-685-650-79
□ : BOLT, HEXAGON 5 x 20 7-683-340-07
○ : BVTP3 x 8 7-685-646-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4388-473-1	BEZEL ASSY	52-58
52	X-4388-467-1	GRILLE (LEFT UPPER) ASSY	
53	X-4388-468-1	GRILLE (LEFT LOWER) ASSY	
54	X-4388-465-1	GRILLE (RIGHT UPPER) ASSY	
55	X-4388-466-1	GRILLE (RIGHT LOWER) ASSY	
56	4-393-610-01	WINDOW, ORNAMENTAL	
57	4-393-617-01	BUTTON, MULTI	
58	4-393-613-01	BUTTON, POWER	
59	4-370-595-01	SHEET, BLOTTING	
60	4-376-980-01	NUT, SPECIAL, PICTURE TUBE	
61 ⚠	.8-737-753-05	PICTURE TUBE (A68JMT50X)	
62	3-703-961-01	SPACER, DY	
64	*4-379-167-01	COVER (MAIN), CV	
65	*A-1330-949-A	C BOARD, COMPLETE	
66	*4-379-160-01	COVER (REAR LID), CV	
67 ⚠	.1-451-275-11	DEFLECTION YOKE (Y28PFA)	
69	4-369-318-00	SPRING, TENSION	
70 ⚠	.1-426-350-21	COIL, DEMAGNETIZATION	
71	*4-379-197-01	BRACKET (H), PICTURE TUBE	
72	*4-376-989-01	BRACKET (E), PICTURE TUBE	
73	4-393-622-01	CABINET (BLACK)	
	4-393-622-11	CABINET (GRAY) (USA ONLY)	
74	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
75	4-306-034-00	FLANGE NUT,(B) 5MM	
76	*4-371-629-01	STOPPER, WIRE	
77 ⚠	.1-559-396-11	CORD, POWER	
78 ⚠	.4-388-328-01	GROMMET, AC CORD	
79	4-308-870-00	CLIP, LEAD WIRE	
80	1-452-032-00	MAGNET,DISK; 10MM ϕ	
81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
82	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

SECTION 8

ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1135-560-A	B BOARD, COMPLETE *****************				
	*1-564-507-11	PLUG, CONNECTOR 4P				
	1-566-942-11	CONNECTOR,HINGE(RECEPTACLE)30P				
	*1-568-371-11	PIN, CONNECTOR (PC BOARD) 15P				
	*1-568-376-11	CONNECTOR,HINGE (RECEPTACLE)7P				
		<CAPACITOR>				
C1302	1-124-119-00	ELECT	330MF	20%	16V	
C1308	1-124-473-11	ELECT	1000MF	20%	10V	
C1309	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C1313	1-124-477-11	ELECT	47MF	20%	16V	
C1314	1-124-477-11	ELECT	47MF	20%	16V	
C1315	1-124-477-11	ELECT	47MF	20%	16V	
C1316	1-124-477-11	ELECT	47MF	20%	16V	
C1319	1-124-477-11	ELECT	47MF	20%	16V	
C1326	1-136-161-00	FILM	0.047MF	5%	50V	
C1342	1-102-971-00	CERAMIC	82PF	5%	50V	
C1343	1-123-875-11	ELECT	10MF	20%	50V	
		<FILTER BLOCK>				
CM1301	1-464-880-11	FILTER BLOCK, COM (CFB-2)				
		<DIODE>				
D1301	8-719-911-19	DIODE 1SS119				
D1302	8-719-911-19	DIODE 1SS119				
		<IC>				
IC1304	8-759-710-69	IC NJM2233BS				
IC1305	8-759-710-69	IC NJM2233BS				
		<TRANSISTOR>				
Q1301	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1302	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1303	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1307	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1308	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1309	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R1305	1-249-429-11	CARBON	10K	5%	1/4W	
R1306	1-249-441-11	CARBON	100K	5%	1/4W	
R1307	1-249-429-11	CARBON	10K	5%	1/4W	
R1308	1-249-417-11	CARBON	1K	5%	1/4W	
R1314	1-249-417-11	CARBON	1K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1320	1-249-405-11	CARBON	100	5%	1/4W	
R1321	1-249-405-11	CARBON	100	5%	1/4W	
R1322	1-249-405-11	CARBON	100	5%	1/4W	
R1323	1-249-405-11	CARBON	100	5%	1/4W	
R1324	1-249-405-11	CARBON	100	5%	1/4W	
R1325	1-249-405-11	CARBON	100	5%	1/4W	
R1327	1-249-417-11	CARBON	1K	5%	1/4W	
R1328	1-249-405-11	CARBON	100	5%	1/4W	
R1329	1-249-405-11	CARBON	100	5%	1/4W	
R1330	1-249-405-11	CARBON	100	5%	1/4W	
R1346	1-249-405-11	CARBON	100	5%	1/4W	
R1347	1-249-417-11	CARBON	1K	5%	1/4W	
R1348	1-249-433-11	CARBON	22K	5%	1/4W	
R1349	1-249-429-11	CARBON	10K	5%	1/4W	
R1350	1-249-415-11	CARBON	680	5%	1/4W	
R1351	1-249-409-11	CARBON	220	5%	1/4W	
R1352	1-249-411-11	CARBON	330	5%	1/4W	
R1353	1-249-405-11	CARBON	100	5%	1/4W	
R1355	1-249-417-11	CARBON	1K	5%	1/4W	
R1356	1-249-405-11	CARBON	100	5%	1/4W	
R1367	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1369	1-249-418-11	CARBON	1.2K	5%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1245-453-A	F BOARD, COMPLETE *****************				
	*1-506-348-99	PIN, CONNECTOR 3P				
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P				
	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
	1-533-127-00	FUSE CLIP				
	*1-533-189-11	HOLDER, FUSE				
	*1-559-991-21	CONNECTOR ASSY 1P				
	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
	*1-564-505-11	PLUG, CONNECTOR 2P				
	*1-564-506-11	PLUG, CONNECTOR 3P				
	*1-564-508-11	PLUG, CONNECTOR 5P				
	*1-565-514-11	SOCKET, CONNECTOR 2P				
	*1-568-378-21	PIN, CONNECTOR 3P				
	*4-341-752-01	EYELET (EY1,EY2,EY3,EY4,EY5,EY6,EY7)				
		<CAPACITOR>				
C601⚠.	1-136-311-51	FILM	0.47MF	20%	125V	
C603	1-108-391-12	MYLAR	0.15MF	10%	100V	
C604	1-101-821-00	CERAMIC	0.0022MF		500V	
C605⚠.	1-162-576-51	CERAMIC	0.001MF	10%	400V	
C606⚠.	1-161-953-51	CERAMIC	0.0047MF	20%	400V	
C607	1-162-599-12	CERAMIC	0.0047MF	20%	400V	
C610	1-124-477-11	ELECT	47MF	20%	16	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C611	1-123-333-00	ELECT	100MF	20%	25V
C616⚠.	1-136-311-51	FILM	0.47MF	20%	125V
C617	1-101-821-00	CERAMIC	0.0022MF		500V
C618	1-124-477-11	ELECT	47MF	20%	16V
C622	1-125-538-11	ELECT(BLOCK)	1000MF	20%	200V
C650	1-161-830-00	CERAMIC	0.0047MF		500V
C651	1-124-799-11	ELECT	2.2MF	20%	160V
C652 ⚠	1-124-122-91	ELECT	100MF	20%	50V
C653	1-102-244-00	CERAMIC	220PF	10%	500V
C654	1-124-126-00	ELECT	47MF	20%	25V
C655	1-136-173-00	FILM	0.47MF	5%	50V
C656	1-106-383-00	MYLAR	0.047MF	10%	100V
C657	1-136-601-11	FILM	0.01MF	10%	630V
C658	1-162-114-00	CERAMIC	0.0047MF		2KV
C660	1-162-599-12	CERAMIC	0.0047MF	20%	400V
C661	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C663	1-124-618-11	ELECT	2200MF	20%	35V
C664	1-126-103-11	ELECT	470MF	20%	16V
C665	1-124-557-11	ELECT	1000MF	20%	25V
C666	1-125-564-11	ELECT(BLOCK)	1000MF	20%	160V
C667	1-102-129-00	CERAMIC	0.01MF	10%	50V
C668	1-162-116-00	CERAMIC	680PF	10%	2KV
C672	1-123-333-00	ELECT	100MF	20%	25V
C673	1-102-129-00	CERAMIC	0.01MF	10%	50V
C674	1-124-126-00	ELECT	47MF	20%	16V

<DIODE>

D601⚠.	8-719-305-07	DIODE RBV-406H
D602	8-719-911-55	DIODE U05G
D603	8-719-911-55	DIODE U05G
D604	8-719-911-19	DIODE 1SS119
D605	8-719-911-55	DIODE U05G
D607	8-719-911-19	DIODE 1SS119
D651	8-719-911-19	DIODE 1SS119
D652	8-719-300-33	DIODE RU-3AM
D653	8-719-311-31	DIODE RU-1P
D657	8-719-500-67	DIODE D5KC40H
D658	8-719-981-00	DIODE ERC81-004
D659	8-719-500-41	DIODE D8LCA20
D660	8-719-312-10	DIODE RU4AM-T3

<FUSE>

F601⚠.	1-532-748-11	FUSE, GLASS TUBE 6.3A/125V

<FERRITE BEAD INDUCTOR>

FB655	1-410-397-21	FERRITE BEAD INDUCTOR
FB658	1-410-396-41	FERRITE BEAD INDUCTOR
FB659	1-410-397-21	FERRITE BEAD INDUCTOR
FB660	1-410-396-41	FERRITE BEAD INDUCTOR
FB662	1-410-397-21	FERRITE BEAD INDUCTOR
FB663	1-410-397-21	FERRITE BEAD INDUCTOR
FB664	1-410-397-21	FERRITE BEAD INDUCTOR

<IC>

IC651⚠	8-749-920-81	IC STR-S6301A
	*4-363-404-00	HOLDER, IC; IC651
	4-393-406-01	SHEET (R), RADIATION; IC651
IC652	8-719-156-73	DIODE PS2501-1LB
IC653⚠	8-749-920-62	IC SE-135NS
IC654⚠	8-749-920-61	IC SE-135N

REF.NO.	PART NO.	DESCRIPTION	REMARK

<COIL>

L601	1-459-104-00	COIL,DUST CORE
L657	1-459-155-00	COIL (WITH CORE) 45UH
L658	1-459-155-00	COIL (WITH CORE) 45UH
L659	1-459-407-00	COIL, FERRITE CHOKE

<TRANSISTOR>

Q602	8-729-255-12	TRANSISTOR 2SC2551
Q603	8-729-200-17	TRANSISTOR 2SA1091
Q651 ⚠	8-729-177-43	TRANSISTOR 2SD774
Q652	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q653	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q654	8-729-119-76	TRANSISTOR 2SA1175-HFE

<RESISTOR>

R601⚠.	1-202-723-51	SOLID	2.2M	10%	1/2W	
R602⚠.	1-205-798-11	WIREWOUND	1.5	5%	20W	F
R603	1-215-885-00	METAL OXIDE	68	5%	2W	F
R605⚠.	1-202-723-51	SOLID	2.2M	10%	1/2W	
R606	1-215-885-00	METAL OXIDE	68	5%	2W	F
R607	1-249-421-11	CARBON	2.2K	5%	1/4W	
R608	1-247-887-00	CARBON	220K	5%	1/4W	
R609	1-249-417-11	CARBON	1K	5%	1/4W	
R611	1-207-645-00	WIREWOUND	0.47	10%	3W	F
R612	1-249-417-11	CARBON	1K	5%	1/4W	F
R613	1-249-441-11	CARBON	100K	5%	1/4W	
R614	1-249-429-11	CARBON	10K	5%	1/4W	
R615	1-247-895-00	CARBON	470K	5%	1/4W	
R619 ⚠	1-216-341-51	METAL OXIDE	0.22	5%	1W	F
R620	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R621	1-249-429-11	CARBON	10K	5%	1/4W	
R622	1-249-423-11	CARBON	3.3K	5%	1/4W	
R623	1-216-457-00	METAL OXIDE	1.2K	5%	2W	F
R624	1-216-458-11	METAL OXIDE	1.8K	5%	2W	F
R651	1-207-612-00	WIREWOUND	0.1	10%	2W	F
R652	1-207-612-00	WIREWOUND	0.1	10%	2W	F
R653	1-215-893-11	METAL OXIDE	1.5K	5%	2W	F
R654	1-205-945-11	WIREWOUND	33	10%	7W	F
R655	1-202-843-11	SOLID	270K	10%	1/2W	
R660 ⚠	1-249-414-51	CARBON	560	5%	1/4W	F
R661	1-249-413-11	CARBON	470	5%	1/4W	
R662	1-249-467-11	CARBON	68K	5%	1/4W	F
R663	1-247-706-11	CARBON	330	5%	1/4W	F
R664	1-249-425-11	CARBON	4.7K	5%	1/4W	
R665	1-249-417-11	CARBON	1K	5%	1/4W	
R666	1-249-425-11	CARBON	4.7K	5%	1/4W	
R667	1-249-417-11	CARBON	1K	5%	1/4W	
R668	1-249-429-11	CARBON	10K	5%	1/4W	
R669	1-249-417-11	CARBON	1K	5%	1/4W	
R670	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R671	1-202-730-00	SOLID	8.2M	10%	1/2W	
R672	1-249-455-11	CARBON	4.7	5%	1/4W	F
R675	1-215-881-11	METAL OXIDE	15	5%	2W	F
R676	1-216-446-00	METAL OXIDE	18	5%	2W	F
R690	1-205-945-11	WIREWOUND	33	10%	7W	F
R691	1-216-468-11	METAL OXIDE	82K	5%	2W	F
R692	1-216-468-11	METAL OXIDE	82K	5%	2W	F
R693	1-216-468-11	METAL OXIDE	82K	5%	2W	F
R694	1-216-468-11	METAL OXIDE	82K	5%	2W	F
R695	1-216-468-11	METAL OXIDE	82K	5%	2W	F

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R696	1-207-682-00	WIREWOUND	47	10%	5W	F

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RY601⚠	1-515-601-11	RELAY

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T601⚠.	1-424-220-21	TRANSFORMER, LINE FILTER
T602⚠.	1-424-205-11	TRANSFORMER, LINE FILTER
T603⚠.	1-448-916-11	TRANSFORMER, POWER
T651⚠.	1-449-607-11	TRANSFORMER

<THERMISTOR>

REF.NO.	PART NO.	DESCRIPTION
THP601⚠	1-808-081-22	THERMISTOR, POSITIVE

****

REF.NO.	PART NO.	DESCRIPTION
	*A-1296-567-A	A BOARD, COMPLETE *****************
	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P
	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)
	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P
	*1-564-505-11	PLUG, CONNECTOR 2P
	*1-564-507-11	PLUG, CONNECTOR 4P
	*1-564-508-11	PLUG, CONNECTOR 5P
	*1-564-509-11	PLUG, CONNECTOR 6P
	*1-564-511-11	PLUG, CONNECTOR 8P
	*1-564-512-11	PLUG, CONNECTOR 9P
	*1-564-513-11	PLUG, CONNECTOR 10P
	*1-565-509-11	CONNECTOR, BOARD TO BOARD 18P
	*1-568-371-11	PIN, CONNECTOR (PC BOARD) 15P
	*4-341-751-01	EYELET
	*4-341-752-01	EYELET (EY1,EY2,EY3,EY4,EY5)

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
A33	*1-564-511-11	PLUG, CONNECTOR 8P

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C101	1-123-875-11	ELECT	10MF	20%	50V
C102	1-126-233-11	ELECT	22MF	20%	25V
C103	1-124-360-00	ELECT	1000MF	20%	16V
C104	1-124-473-11	ELECT	1000MF	20%	10V
C106	1-136-153-00	FILM	0.01MF	5%	50V
C107	1-119-160-00	ELECT	470MF		10V
C108	1-123-875-11	ELECT	10MF	20%	50V
C109	1-102-973-00	CERAMIC	100PF	5%	50V
C111	1-102-978-00	CERAMIC	220PF	5%	50V
C112	1-136-161-00	FILM	0.047MF	5%	50V
C113	1-124-499-11	ELECT	1MF	20%	50V
C114	1-102-978-00	CERAMIC	220PF	5%	50V
C115	1-101-006-00	CERAMIC	0.047MF		50V
C116	1-102-973-00	CERAMIC	100PF	5%	50V
C119	1-123-875-11	ELECT	10MF	20%	50V
C120	1-124-360-00	ELECT	1000MF	20%	16V
C121	1-136-165-00	FILM	0.1MF	5%	50V
C124	1-130-728-00	FILM	0.0022MF	5%	50V
C125	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C126	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C128	1-124-477-11	ELECT	47MF	20%	16V
C129	1-136-161-00	FILM	0.047MF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C199	1-124-477-11	ELECT	47MF	20%	16V
C201	1-124-478-11	ELECT	100MF	20%	25V
C202	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C203	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C301	1-124-120-11	ELECT	220MF	20%	16V
C302	1-124-234-00	ELECT	22MF	20%	16V
C303	1-136-153-00	FILM	0.01MF	5%	50V
C304	1-124-499-11	ELECT	1MF	20%	50V
C305	1-124-465-00	ELECT	0.47MF	20%	50V
C306	1-124-234-00	ELECT	22MF	20%	16V
C307	1-102-978-00	CERAMIC	220PF	5%	50V
C308	1-102-965-00	CERAMIC	39PF	5%	50V
C309	1-136-165-00	FILM	0.1MF	5%	50V
C310	1-136-165-00	FILM	0.1MF	5%	50V
C311	1-136-165-00	FILM	0.1MF	5%	50V
C312	1-136-169-00	FILM	0.22MF	5%	50V
C313	1-124-499-11	ELECT	1MF	20%	50V
C315	1-136-158-00	FILM	0.027MF	5%	50V
C316	1-102-973-00	CERAMIC	100PF	5%	50V
C317	1-136-169-00	FILM	0.22MF	5%	50V
C318	1-136-169-00	FILM	0.22MF	5%	50V
C319	1-102-980-00	CERAMIC	270PF	5%	50V
C320	1-124-499-11	ELECT	1MF	20%	50V
C321	1-136-153-00	FILM	0.01MF	5%	50V
C322	1-124-499-11	ELECT	1MF	20%	50V
C323	1-124-443-00	ELECT	100MF	20%	10V
C324	1-102-114-00	CERAMIC	470PF	10%	50V
C325	1-102-114-00	CERAMIC	470PF	10%	50V
C326	1-124-499-11	ELECT	1MF	20%	50V
C327	1-130-479-00	MYLAR	0.0047MF	5%	50V
C328	1-123-875-11	ELECT	10MF	20%	50V
C329	1-124-799-11	ELECT	2.2MF	20%	160V
C331	1-102-112-00	CERAMIC	330PF	10%	50V
C332	1-136-157-00	FILM	0.022MF	5%	50V
C333	1-124-499-11	ELECT	1MF	20%	50V
C334	1-136-161-00	FILM	0.047MF	5%	50V
C335	1-130-471-00	MYLAR	0.001MF	5%	50V
C338	1-126-233-11	ELECT	22MF	20%	50V
C339	1-123-875-11	ELECT	10MF	20%	50V
C340	1-124-902-00	ELECT	0.47MF	20%	50V
C342	1-161-377-00	CERAMIC	0.0047MF	30%	50V
C343	1-119-363-00	ELECT	4.7MF		25V
C344	1-126-176-11	ELECT	220MF	20%	10V
C351	1-136-169-00	FILM	0.22MF	5%	50V
C352	1-136-165-00	FILM	0.1MF	5%	50V
C353	1-124-902-00	ELECT	0.47MF	20%	50V
C382	1-124-234-00	ELECT	22MF	20%	16V
C500	1-130-475-00	MYLAR	0.0022MF	5%	50V
C501	1-124-122-11	ELECT	100MF	20%	50V
C502 ⚠	1-124-557-91	ELECT	1000MF	20%	25V
C503	1-124-477-11	ELECT	47MF	20%	25V
C504	1-106-216-00	MYLAR	0.068MF	10%	100V
C505	1-106-383-00	MYLAR	0.047MF	10%	100V
C508	1-136-161-00	FILM	0.047MF	5%	50V
C509	1-106-387-00	MYLAR	0.068MF	10%	200V
C510	1-102-228-00	CERAMIC	470PF	10%	500V
C511	1-124-494-00	ELECT	33MF		160V
C512	1-124-046-00	ELECT	10MF	20%	160V
C513	1-124-477-11	ELECT	47MF	20%	25V
C514	1-124-557-11	ELECT	1000MF	20%	25V
C515	1-162-114-00	CERAMIC	0.0047MF		2KV
C516	1-162-116-00	CERAMIC	680PF	10%	2KV
C517	1-162-116-00	CERAMIC	680PF	10%	2KV

A

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C518	1-106-359-00	MYLAR	0.0047MF	10%	200V
C519⚠	1-136-897-11	FILM	0.021MF	3%	2KV
C520	1-162-116-00	CERAMIC	680PF	10%	2KV
C521	1-162-558-11	CERAMIC	100PF	10%	2KV
C522⚠	1-136-896-51	FILM	0.091MF	5%	630V
C523	1-102-244-00	CERAMIC	220PF	10%	500V
C524	1-106-383-00	MYLAR	0.047MF	10%	200V
C525	1-124-902-00	ELECT	0.47MF	20%	50V
C526	1-102-244-00	CERAMIC	220PF	10%	500V
C527	1-162-318-11	CERAMIC	0.001MF	10%	500V
C528	1-102-030-00	CERAMIC	330PF	10%	500V
C529	1-136-109-00	FILM	0.68MF	5%	200V
C530	1-123-947-00	ELECT	10MF	20%	250V
C531	1-130-475-00	MYLAR	0.0022MF	5%	50V
C532	1-130-475-00	MYLAR	0.0022MF	5%	50V
C533	1-130-471-00	MYLAR	0.001MF	5%	50V
C534	1-124-477-11	ELECT	47MF	20%	25V
C535	1-123-948-00	ELECT	22MF	20%	250V
C536	1-136-559-11	FILM	0.0047MF	10%	630V
C537	1-124-927-11	ELECT	4.7MF	20%	50V
C541	1-106-383-00	MYLAR	0.047MF		200V
C543	1-136-828-11	FILM	1.8MF	5%	200V
C544	1-106-343-00	MYLAR	0.001MF	10%	100V
C545	1-124-910-11	ELECT	47MF	20%	50V
C546	1-102-228-00	CERAMIC	470PF	10%	500V
C548	1-124-927-11	ELECT	4.7MF	20%	50V
C549	1-124-477-11	ELECT	47MF	20%	25V
C550	1-136-111-00	FILM	1MF	5%	200V
C551	1-124-927-11	ELECT	4.7MF	20%	50V
C552	1-102-228-00	CERAMIC	470PF	10%	500V
C553	1-123-875-11	ELECT	10MF	20%	50V
C555	1-123-875-11	ELECT	10MF	20%	50V
C556	1-123-932-00	ELECT	4.7MF	20%	160V
C557	1-102-114-00	CERAMIC	470PF	10%	50V
C558	1-136-161-00	FILM	0.047MF	5%	50V
C559	1-136-165-00	FILM	0.1MF	5%	50V
C581	1-124-478-11	ELECT	100MF	20%	25V
C582	1-124-478-11	ELECT	100MF	20%	25V
C583	1-124-478-11	ELECT	100MF	20%	25V
C584	1-124-478-11	ELECT	100MF	20%	25V
C585	1-124-478-11	ELECT	100MF	20%	25V
C586	1-124-478-11	ELECT	100MF	20%	25V
C611⚠	1-102-125-91	CERAMIC	0.0047MF	10%	50V
C612⚠	1-102-125-91	CERAMIC	0.0047MF	10%	50V
C613	1-124-480-11	ELECT	470MF	20%	25V
C614	1-124-480-11	ELECT	470MF	20%	25V
C619	1-124-478-11	ELECT	100MF	20%	25V
C620	1-123-875-11	ELECT	10MF	20%	50V
C640	1-136-165-00	FILM	0.1MF	5%	50V
C641	1-101-006-00	CERAMIC	0.047MF		50V
C642	1-102-129-00	CERAMIC	0.01MF	10%	50V
C643	1-101-005-00	CERAMIC	0.022MF		50V
C644	1-101-005-00	CERAMIC	0.022MF		50V
C1701	1-102-976-00	CERAMIC	180PF	5%	50V
C1702	1-102-973-00	CERAMIC	100PF	5%	50V
C1703	1-124-477-11	ELECT	47MF	20%	16V

<NETWORK>

REF.NO.	PART NO.	DESCRIPTION
CP102	1-236-301-11	NETWORK, C
CP103	1-236-491-11	NETWORK, RES, THICK FILM
CP105	1-236-479-11	NETWORK, C
CP106	1-236-479-11	NETWORK, C
CP108	1-236-358-21	NETWORK, RES
CP109	1-236-358-21	NETWORK, RES
CP110	1-236-294-21	NETWORK, RES

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D101	8-719-110-78	DIODE RD33ES-B2
D102	8-719-911-19	DIODE 1SS119
D103	8-719-911-19	DIODE 1SS119
D104	8-719-911-19	DIODE 1SS119
D105	8-719-974-81	DIODE 1SV113
D106	8-719-911-19	DIODE 1SS119
D112	8-719-911-19	DIODE 1SS119
D114	8-719-911-19	DIODE 1SS119
D301	8-719-110-48	DIODE RD18ES-B1
D302	8-719-109-89	DIODE RD5.6ES-B2
D303	8-719-109-84	DIODE RD5.1ES-B1
D304	8-719-109-96	DIODE RD6.8ES-B1
D306	8-719-911-19	DIODE 1SS119
D307	8-719-911-19	DIODE 1SS119
D308	8-719-911-19	DIODE 1SS119
D350	8-719-109-89	DIODE RD5.6ES-B2
D500	8-719-911-55	DIODE U05G
D501	8-719-300-33	DIODE RU-3AM
D502	8-719-902-85	DIODE RG3G-5007L
D503	8-719-901-58	DIODE RGP15J
D504	8-719-500-26	DIODE D5KD20H
D505	8-719-300-65	DIODE ES1F
D506	8-719-911-19	DIODE 1SS119
D507	8-719-300-33	DIODE RU-3AM
D508	8-719-911-19	DIODE 1SS119
D509	8-719-911-19	DIODE 1SS119
D511	8-719-902-85	DIODE RG3G-5007L
D512	8-719-311-87	DIODE FMS-3FU
	*4-393-401-01	SPRING; D512
D513	8-719-911-19	DIODE 1SS119
D514	8-719-911-19	DIODE 1SS119
D515	8-719-911-19	DIODE 1SS119
D531	8-719-911-19	DIODE 1SS119
D533	8-719-109-81	DIODE RD4.7ES-B2
D536	8-719-300-33	DIODE RU-3AM
D537	8-719-911-19	DIODE 1SS119
D539	8-719-302-43	DIODE EL1Z
D602	8-719-511-40	DIODE S1VB40
D640	8-719-911-19	DIODE 1SS119

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC101	8-759-632-89	IC M37100M8-717SP
IC102	8-759-972-43	IC PCD8582
IC103	8-759-403-44	IC MN1280-S
IC301	8-752-035-52	IC CXA1313S
IC500	8-759-980-58	IC TDA8172
	*4-393-401-01	SPRING; IC500
	4-393-405-01	SHEET (V), RADIATION; IC500
IC531	8-759-103-93	IC UPC393C
IC581⚠	8-759-142-04	IC UPC7893HF
	*4-393-401-01	SPRING; IC581
IC582⚠	8-759-142-04	IC UPC7893HF
	*4-368-683-01	SPRING; IC582
IC601	8-759-112-06	IC UPC78N05H
IC901⚠	8-759-171-05	IC UPC7805H
IC1701	8-759-978-66	IC MB88201-638L

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REF.NO.	PART NO.	DESCRIPTION		REMARK
		<IF BLOCK>		
IF201	1-464-755-21	IF BLOCK (IFE-450A)		
		<COIL>		
L101	1-408-421-00	INDUCTOR	100UH	
L102	1-408-415-00	INDUCTOR	33UH	
L201	1-408-408-00	INDUCTOR	8.2UH	
L500	1-422-613-11	COIL, AIR CORE		
L501	1-459-148-00	COIL		
L503	1-422-613-11	COIL, AIR CORE		
L505 ⚠	1-410-669-31	INDUCTOR	33UH	
L506	1-408-225-00	INDUCTOR	3.3UH	
L507	1-421-541-00	COIL, CHOKE 1000UH		
L508 ⚠	1-424-210-11	COIL, PIN MODULATION		
L509	1-422-613-11	COIL, AIR CORE		
L511	1-408-225-00	INDUCTOR	3.3UH	
L512 ⚠	1-459-973-21	COIL, HORIZONTAL LINEARITY		
L513	1-408-698-00	INDUCTOR	8.2UH	
L514 ⚠	1-408-698-21	INDUCTOR	8.2UH	
L1701	1-408-413-00	INDUCTOR	22UH	
		<NEON LAMP>		
NL501	1-519-108-99	LAMP, NEON		
		<MODULE>		
PM501 ⚠	1-808-690-11	MODULE, PROTECTOR (PM-14)		
		<TRANSISTOR>		
Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q102	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q104	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q105	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q107	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q108	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q170	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q201	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q301	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q302	8-729-900-89	TRANSISTOR	DTC144ES	
Q303	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q304	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q306	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q307	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q308	8-729-900-89	TRANSISTOR	DTC144ES	
Q310	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q311	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q312	8-729-119-76	TRANSISTOR	2SA1175-HFE	
Q313	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q314	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q351	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q352	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q501	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q502	8-729-119-80	TRANSISTOR	2SC2688-LK	
Q503	8-729-304-50	TRANSISTOR	2SD1941-06	
	*4-393-401-01	SPRING; Q503		
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE	
Q505	8-729-208-72	TRANSISTOR	2SC3298B-Y	
Q506	8-729-119-76	TRANSISTOR	2SA1175-HFE	

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<RESISTOR>				
R101	1-249-425-11	CARBON	4.7K	5%	1/4W	
R102	1-249-416-11	CARBON	820	5%	1/4W	
R103	1-215-896-00	METAL OXIDE	4.7K	5%	2W	F
R105	1-249-429-11	CARBON	10K	5%	1/4W	
R106	1-249-421-11	CARBON	2.2K	5%	1/4W	
R107	1-249-417-11	CARBON	1K	5%	1/4W	
R108	1-249-421-11	CARBON	2.2K	5%	1/4W	
R109	1-249-421-11	CARBON	2.2K	5%	1/4W	
R110	1-249-421-11	CARBON	2.2K	5%	1/4W	
R111	1-249-421-11	CARBON	2.2K	5%	1/4W	
R112	1-249-421-11	CARBON	2.2K	5%	1/4W	
R113	1-249-421-11	CARBON	2.2K	5%	1/4W	
R114	1-249-421-11	CARBON	2.2K	5%	1/4W	
R115	1-249-421-11	CARBON	2.2K	5%	1/4W	
R116	1-249-409-11	CARBON	220	5%	1/4W	
R117	1-249-409-11	CARBON	220	5%	1/4W	
R118	1-249-409-11	CARBON	220	5%	1/4W	
R119	1-249-431-11	CARBON	15K	5%	1/4W	
R120	1-249-421-11	CARBON	2.2K	5%	1/4W	
R121	1-249-421-11	CARBON	2.2K	5%	1/4W	
R122	1-249-421-11	CARBON	2.2K	5%	1/4W	
R123	1-249-421-11	CARBON	2.2K	5%	1/4W	
R124	1-249-421-11	CARBON	2.2K	5%	1/4W	
R125	1-249-421-11	CARBON	2.2K	5%	1/4W	
R126	1-249-421-11	CARBON	2.2K	5%	1/4W	
R127	1-249-413-11	CARBON	470	5%	1/4W	
R128	1-249-425-11	CARBON	4.7K	5%	1/4W	
R129	1-249-425-11	CARBON	4.7K	5%	1/4W	
R130	1-249-437-11	CARBON	47K	5%	1/4W	
R131	1-249-429-11	CARBON	10K	5%	1/4W	
R133	1-249-421-11	CARBON	2.2K	5%	1/4W	
R134	1-249-421-11	CARBON	2.2K	5%	1/4W	
R135	1-249-429-11	CARBON	10K	5%	1/4W	
R136	1-249-429-11	CARBON	10K	5%	1/4W	
R137	1-249-409-11	CARBON	220	5%	1/4W	
R138	1-249-425-11	CARBON	4.7K	5%	1/4W	
R139	1-249-421-11	CARBON	2.2K	5%	1/4W	
R140	1-249-439-11	CARBON	68K	5%	1/4W	
R141	1-247-903-00	CARBON	1M	5%	1/4W	
R142	1-249-437-11	CARBON	47K	5%	1/4W	
R143	1-249-437-11	CARBON	47K	5%	1/4W	
R144	1-215-896-00	METAL OXIDE	4.7K	5%	2W	F
R145	1-249-429-11	CARBON	10K	5%	1/4W	
R146	1-247-903-00	CARBON	1M	5%	1/4W	
R147	1-249-429-11	CARBON	10K	5%	1/4W	
R148	1-249-429-11	CARBON	10K	5%	1/4W	
R149	1-215-896-00	METAL OXIDE	4.7K	5%	2W	F
R150	1-249-441-11	CARBON	100K	5%	1/4W	
R151	1-249-429-11	CARBON	10K	5%	1/4W	
R152	1-249-425-11	CARBON	4.7K	5%	1/4W	
R153	1-249-429-11	CARBON	10K	5%	1/4W	
R154	1-249-429-11	CARBON	10K	5%	1/4W	
R156	1-249-409-11	CARBON	220	5%	1/4W	
R158	1-249-429-11	CARBON	10K	5%	1/4W	
R159	1-249-437-11	CARBON	47K	5%	1/4W	
R160	1-247-887-00	CARBON	220K	5%	1/4W	
R161	1-249-409-11	CARBON	220	5%	1/4W	
R162	1-249-409-11	CARBON	220	5%	1/4W	
R163	1-249-421-11	CARBON	2.2K	5%	1/4W	
R164	1-249-409-11	CARBON	220	5%	1/4W	
R165	1-249-409-11	CARBON	220	5%	1/4W	
R166	1-249-409-11	CARBON	220	5%	1/4W	

A

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R167	1-249-429-11	CARBON	10K	5%	1/4W	
R168	1-249-429-11	CARBON	10K	5%	1/4W	
R169	1-249-429-11	CARBON	10K	5%	1/4W	
R170	1-249-429-11	CARBON	10K	5%	1/4W	
R171	1-249-421-11	CARBON	2.2K	5%	1/4W	
R172	1-249-429-11	CARBON	10K	5%	1/4W	
R173	1-249-421-11	CARBON	2.2K	5%	1/4W	
R174	1-249-421-11	CARBON	2.2K	5%	1/4W	
R175	1-249-421-11	CARBON	2.2K	5%	1/4W	
R176	1-249-421-11	CARBON	2.2K	5%	1/4W	
R177	1-249-409-11	CARBON	220	5%	1/4W	
R178	1-249-417-11	CARBON	1k	5%	1/4W	
R179	1-249-417-11	CARBON	1k	5%	1/4W	
R181	1-249-417-11	CARBON	1k	5%	1/4W	
R182	1-249-421-11	CARBON	2.2K	5%	1/4W	
R183	1-249-421-11	CARBON	2.2K	5%	1/4W	
R184	1-249-417-11	CARBON	1K	5%	1/4W	
R185	1-249-417-11	CARBON	1K	5%	1/4W	
R186	1-249-433-11	CARBON	22K	5%	1/4W	
R187	1-249-421-11	CARBON	2.2K	5%	1/4W	
R188	1-249-425-11	CARBON	4.7K	5%	1/4W	
R189	1-249-433-11	CARBON	22K	5%	1/4W	
R190	1-249-421-11	CARBON	2.2K	5%	1/4W	
R191	1-249-421-11	CARBON	2.2K	5%	1/4W	
R192	1-249-421-11	CARBON	2.2K	5%	1/4W	
R194	1-249-417-11	CARBON	1K	5%	1/4W	
R195	1-249-421-11	CARBON	2.2K	5%	1/4W	
R196	1-249-421-11	CARBON	2.2K	5%	1/4W	
R197	1-259-884-11	CARBON	4.7M	5%	1/4W	
R198	1-249-417-11	CARBON	1K	5%	1/4W	
R200	1-249-417-11	CARBON	1K	5%	1/4W	
R201	1-249-425-11	CARBON	4.7K	5%	1/4W	
R202	1-249-429-11	CARBON	10K	5%	1/4W	
R203	1-249-435-11	CARBON	33K	5%	1/4W	
R204	1-249-435-11	CARBON	33K	5%	1/4W	
R205	1-249-411-11	CARBON	330	5%	1/4W	
R208	1-216-423-11	METAL OXIDE	27	5%	1W	F
R209	1-249-417-11	CARBON	1K	5%	1/4W	
R212	1-249-417-11	CARBON	1K	5%	1/4W	
R301	1-215-448-00	METAL	13K	1%	1/6W	
R304	1-249-432-11	CARBON	18K	5%	1/4W	
R305	1-247-899-11	CARBON	680K	5%	1/4W	
R306	1-215-421-00	METAL	1K	1%	1/6W	
R307	1-249-405-11	CARBON	100	5%	1/4W	
R308	1-249-405-11	CARBON	100	5%	1/4W	
R309	1-249-405-11	CARBON	100	5%	1/4W	
R310	1-249-409-11	CARBON	220	5%	1/4W	
R311	1-249-409-11	CARBON	220	5%	1/4W	
R312	1-249-409-11	CARBON	220	5%	1/4W	
R313	1-249-409-11	CARBON	220	5%	1/4W	
R314	1-249-409-11	CARBON	220	5%	1/4W	
R315	1-249-417-11	CARBON	1K	5%	1/4W	
R316	1-249-425-11	CARBON	4.7K	5%	1/4W	
R317	1-249-429-11	CARBON	10K	5%	1/4W	
R320	1-249-429-11	CARBON	10K	5%	1/4W	
R321	1-249-441-11	CARBON	100K	5%	1/4W	
R322	1-249-428-11	CARBON	8.2K	5%	1/4W	
R323	1-215-457-00	METAL	33K	1%	1/6W	
R324	1-249-405-11	CARBON	100	5%	1/4W	
R325	1-249-414-11	CARBON	560	5%	1/4W	
R326	1-249-421-11	CARBON	2.2K	5%	1/4W	
R327	1-249-417-11	CARBON	1K	5%	1/4W	
R328	1-249-413-11	CARBON	470	5%	1/4W	
R329	1-249-425-11	CARBON	4.7K	5%	1/4W	
R330	1-249-421-11	CARBON	2.2K	5%	1/4W	
R332	1-247-895-00	CARBON	470K	5%	1/4W	
R333	1-249-409-11	CARBON	220	5%	1/4W	
R334	1-249-420-11	CARBON	1.8K	5%	1/4W	
R335	1-249-441-11	CARBON	100K	5%	1/4W	
R336	1-249-405-11	CARBON	100	5%	1/4W	
R337	1-249-438-11	CARBON	56K	5%	1/4W	
R339	1-249-411-11	CARBON	330	5%	1/4W	
R340	1-249-405-11	CARBON	100	5%	1/4W	
R341	1-249-405-11	CARBON	100	5%	1/4W	
R342	1-249-405-11	CARBON	100	5%	1/4W	
R343	1-249-405-11	CARBON	100	5%	1/4W	
R344	1-249-405-11	CARBON	100	5%	1/4W	
R345	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R346	1-249-413-11	CARBON	470	5%	1/4W	
R347	1-259-884-11	CARBON	4.7M	5%	1/4W	
R349	1-249-409-11	CARBON	220	5%	1/4W	
R350	1-249-423-11	CARBON	3.3K	5%	1/4W	
R351	1-249-441-11	CARBON	100K	5%	1/4W	
R352	1-249-441-11	CARBON	100K	5%	1/4W	
R353	1-249-441-11	CARBON	100K	5%	1/4W	
R354	1-249-433-11	CARBON	22K	5%	1/4W	
R355	1-249-433-11	CARBON	22K	5%	1/4W	
R356	1-249-433-11	CARBON	22K	5%	1/4W	
R357	1-249-437-11	CARBON	47K	5%	1/4W	
R358	1-247-891-00	CARBON	330K	5%	1/4W	
R359	1-249-433-11	CARBON	22K	5%	1/4W	
R360	1-249-433-11	CARBON	22K	5%	1/4W	
R361	1-249-431-11	CARBON	15K	5%	1/4W	
R362	1-249-421-11	CARBON	2.2K	5%	1/4W	
R363	1-249-421-11	CARBON	2.2K	5%	1/4W	
R364	1-249-405-11	CARBON	100	5%	1/4W	
R365	1-249-405-11	CARBON	100	5%	1/4W	
R366	1-249-437-11	CARBON	47K	5%	1/4W	
R367	1-249-417-11	CARBON	1K	5%	1/4W	
R373	1-249-417-11	CARBON	1K	5%	1/4W	
R374	1-249-428-11	CARBON	8.2K	5%	1/4W	
R375	1-249-421-11	CARBON	2.2K	5%	1/4W	
R376	1-249-425-11	CARBON	4.7K	5%	1/4W	
R377	1-249-439-11	CARBON	68K	5%	1/4W	
R378	1-249-427-11	CARBON	6.8K	5%	1/4W	
R379	1-249-421-11	CARBON	2.2K	5%	1/4W	
R380	1-249-424-11	CARBON	3.9K	5%	1/4W	
R381	1-249-421-11	CARBON	2.2K	5%	1/4W	
R382	1-249-413-11	CARBON	470	5%	1/4W	
R383	1-249-429-11	CARBON	10K	5%	1/4W	
R385	1-247-903-00	CARBON	1M	5%	1/4W	
R386	1-249-417-11	CARBON	1K	5%	1/4W	
R500	1-249-433-11	CARBON	22K	5%	1/4W	
R501	1-215-459-00	METAL	39K	1%	1/6W	
R502	1-216-371-00	METAL OXIDE	1.5	5%	2W	F
R503	1-249-437-11	CARBON	47K	5%	1/4W	
R504	1-215-446-00	METAL	11K	1%	1/6W	
R505	1-216-453-00	METAL OXIDE	270	5%	2W	F
R507	1-249-439-11	CARBON	68K	5%	1/4W	
R510	1-249-393-11	CARBON	10	5%	1/4W	F
R511	1-249-436-11	CARBON	39K	5%	1/4W	
R513	1-249-425-11	CARBON	4.7K	5%	1/4W	
R516 ⚠.	1-249-443-51	CARBON	0.47	5%	1/4W	F
R517 ⚠.	1-216-355-91	METAL OXIDE	3.3	5%	1W	F
R518	1-249-482-11	CARBON	4.7	5%	1/2W	F
R519 ⚠.	1-215-871-91	METAL OXIDE	2.2K	5%	1W	F
R521 ⚠.	1-249-465-91	CARBON	47K	5%	1/4W	F

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R522	1-215-868-00	METAL OXIDE	680	5%	1W	F
R523	1-216-342-11	METAL OXIDE	0.27	5%	1W	F
R524	1-215-890-11	METAL OXIDE	470	5%	2W	F
R528	1-215-880-00	METAL OXIDE	10	5%	2W	F
R529	1-249-426-11	CARBON	5.6K	5%	1/4W	
R530	1-247-887-00	CARBON	220K	5%	1/4W	
R531	1-216-456-00	METAL OXIDE	820	5%	2W	F
R533	1-249-429-11	CARBON	10K	5%	1/4W	
R534	1-249-437-11	CARBON	47K	5%	1/4W	
R535	1-249-432-11	CARBON	18K	5%	1/4W	
R536	1-247-889-00	CARBON	270K	5%	1/4W	
R537	1-247-883-00	CARBON	150K	5%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-216-456-00	METAL OXIDE	820	5%	2W	F
R541	1-215-437-00	METAL	4.7K	1%	1/6W	
R542	1-249-441-11	CARBON	100K	5%	1/4W	
R544	1-247-903-00	CARBON	1M	5%	1/4W	
R545	1-247-903-00	CARBON	1M	5%	1/4W	
R546	1-247-891-00	CARBON	330K	5%	1/4W	
R547	1-247-903-00	CARBON	1M	5%	1/4W	
⧓R549⚠.		CARBON			1/4W	
R551	1-249-413-11	CARBON	470	5%	1/4W	
R552	1-249-405-11	CARBON	100	5%	1/4W	F
R553	1-249-401-11	CARBON	47	5%	1/4W	
R554	1-249-423-11	CARBON	3.3K	5%	1/4W	
R555	1-247-722-11	CARBON	5.6K	5%	1/4W	F
R556	1-249-455-11	CARBON	4.7	5%	1/4W	F
R558	1-215-890-11	METAL OXIDE	470	5%	2W	F
R559 ⚠	1-216-380-91	METAL OXIDE	8.2	5%	2W	F
R560	1-247-887-00	CARBON	220K	5%	1/4W	
R561	1-249-441-11	CARBON	100K	5%	1/4W	
R562	1-247-734-11	CARBON	39	5%	1/2W	F
R563	1-215-890-11	METAL OXIDE	470	5%	2W	F
⧓R567⚠.		CARBON			1/4W	
R568	1-249-431-11	CARBON	15K	5%	1/4W	
R569	1-249-425-11	CARBON	4.7K	5%	1/4W	
R570	1-249-439-11	CARBON	68K	5%	1/4W	
R571⚠.	1-213-048-51	FUSIBLE	3.3	5%	1W	F
R572 ⚠	1-216-377-91	METAL OXIDE	4.7	5%	2W	F
R573 ⚠	1-216-377-91	METAL OXIDE	4.7	5%	2W	F
R574	1-249-409-11	CARBON	220	5%	1/4W	F
R575	1-249-405-11	CARBON	100	5%	1/4W	
R601	1-249-443-11	CARBON	0.47	5%	1/4W	F
R606	1-216-425-11	METAL OXIDE	56	5%	1W	F
R620	1-249-440-11	CARBON	82K	5%	1/4W	
R621	1-249-429-11	CARBON	10K	5%	1/4W	
R622	1-249-441-11	CARBON	100K	5%	1/4W	
R624	1-249-435-11	CARBON	33K	5%	1/4W	
R625	1-249-423-11	CARBON	3.3K	5%	1/4W	
R626	1-249-434-11	CARBON	27K	5%	1/4W	
R1701	1-249-417-11	CARBON	1K	5%	1/4W	
R1702	1-249-417-11	CARBON	1K	5%	1/4W	
R1703	1-249-417-11	CARBON	1K	5%	1/4W	
R1704	1-249-417-11	CARBON	1K	5%	1/4W	
R1705	1-249-417-11	CARBON	1K	5%	1/4W	
R1706	1-249-417-11	CARBON	1K	5%	1/4W	
R1707	1-249-417-11	CARBON	1K	5%	1/4W	
R1708	1-249-417-11	CARBON	1K	5%	1/4W	
R1709	1-249-417-11	CARBON	1K	5%	1/4W	
R1710	1-249-417-11	CARBON	1K	5%	1/4W	
R1711	1-249-417-11	CARBON	1K	5%	1/4W	
R1712	1-249-417-11	CARBON	1K	5%	1/4W	
R1713	1-249-417-11	CARBON	1K	5%	1/4W	
R1714	1-249-429-11	CARBON	10K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1715	1-249-429-11	CARBON	10K	5%	1/4W	

<SPARK GAP>

SG501	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T500⚠.	1-439-455-11	TRANSFORMER ASSY, FLYBACK (NX-2300)
T501⚠.	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE

<TUNER>

TU101⚠.	1-463-771-11	TUNER, ET (BTP-201A)

<CRYSTAL>

X101	1-577-082-11	VIBRATOR, CERAMIC
X301	1-567-505-11	OSCILLATOR, CRYSTAL

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*1-629-624-11 X BOARD
****

*1-568-380-21 PIN, CONNECTOR 15P

<CAPACITOR>

C251	1-124-499-11	ELECT	1MF	20%	50V
C252	1-136-157-00	FILM	0.022MF	5%	50V
C253	1-124-499-11	ELECT	1MF	20%	50V
C254	1-130-309-00	FILM	0.033MF	5%	100V
C255	1-124-499-11	ELECT	1MF	20%	50V
C256	1-124-478-11	ELECT	100MF	20%	25V
C257	1-124-927-11	ELECT	4.7MF	20%	50V
C258	1-124-902-00	ELECT	0.47MF	20%	50V
C259	1-124-499-11	ELECT	1MF	20%	50V
C260	1-124-499-11	ELECT	1MF	20%	50V
C261	1-124-499-11	ELECT	1MF	20%	50V
C262	1-124-499-11	ELECT	1MF	20%	50V
C263	1-124-499-11	ELECT	1MF	20%	50V
C264	1-123-875-11	ELECT	10MF	20%	50V
C265	1-136-170-00	FILM	0.27MF	5%	50V
C266	1-123-875-11	ELECT	10MF	20%	50V
C267	1-131-368-00	TANTALUM	3.3MF	10%	16V
C268	1-124-499-11	ELECT	1MF	20%	50V
C269	1-131-347-00	TANTALUM	1MF	20%	16V
C270	1-124-499-11	ELECT	1MF	20%	50V
C271	1-123-875-11	ELECT	10MF	20%	50V
C272	1-124-499-11	ELECT	1MF	20%	50V
C273	1-124-477-11	ELECT	47MF	20%	16V
C274	1-130-475-00	MYLAR	0.0022MF	5%	50V
C275	1-130-475-00	MYLAR	0.0022MF	5%	50V
C276	1-102-074-00	CERAMIC	0.001MF	10%	50V
C277	1-123-875-11	ELECT	10MF	20%	50V
C278	1-124-499-11	ELECT	1MF	20%	50V
C280	1-123-875-11	ELECT	10MF	20%	50V
C281	1-123-875-11	ELECT	10MF	20%	50V
C282	1-123-875-11	ELECT	10MF	20%	50V
C284	1-123-875-11	ELECT	10MF	20%	50V
C285	1-136-171-00	FILM	0.33MF	5%	50V
C286	1-136-175-00	FILM	0.68MF	5%	50V

X **C**

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<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC251	8-752-035-54	IC CXA1264S	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R251	1-249-409-11	CARBON 220 5% 1/4W	
R252	1-249-409-11	CARBON 220 5% 1/4W	
R253	1-249-409-11	CARBON 220 5% 1/4W	
R254	1-249-409-11	CARBON 220 5% 1/4W	
R255	1-249-420-11	CARBON 1.8K 5% 1/4W	
R256	1-249-405-11	CARBON 100 5% 1/4W	
R257	1-249-409-11	CARBON 220 5% 1/4W	
R258	1-249-409-11	CARBON 220 5% 1/4W	
R259	1-249-409-11	CARBON 220 5% 1/4W	
R260	1-249-409-11	CARBON 220 5% 1/4W	
R261	1-249-409-11	CARBON 220 5% 1/4W	
R262	1-249-409-11	CARBON 220 5% 1/4W	
R266	1-215-456-00	METAL 30K 1% 1/6W	

****

*A-1330-949-A C BOARD, COMPLETE
****

*1-506-348-99 PIN, CONNECTOR 3P
*1-508-768-00 PIN, CONNECTOR (5MM PITCH) 6P
*1-564-511-11 PLUG, CONNECTOR 8P
*4-379-160-01 COVER (REAR LID), CV
*4-379-167-01 COVER (MAIN), CV

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C701	1-162-116-00	CERAMIC 680PF 10% 2KV	
C702	1-136-601-11	FILM 0.01MF 5% 630V	
C703	1-123-875-11	ELECT 10MF 20% 50V	
C704	1-123-946-00	ELECT 4.7MF 20% 250V	
C705	1-106-367-00	MYLAR 0.01MF 10% 200V	
C707	1-102-116-00	CERAMIC 680PF 10% 50V	
C708	1-102-116-00	CERAMIC 680PF 10% 50V	
C709	1-102-116-00	CERAMIC 680PF 10% 50V	
C710	1-102-117-00	CERAMIC 820PF 10% 50V	
C711	1-126-233-11	ELECT 22MF 20% 25V	
C712	1-102-116-00	CERAMIC 680PF 10% 50V	
C713	1-102-117-00	CERAMIC 820PF 10% 50V	
C714	1-162-622-11	CERAMIC 330PF 10% 6.3KV	
C715	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C718	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C719	1-126-233-11	ELECT 22MF 20% 25V	
C720	1-126-233-11	ELECT 22MF 20% 25V	
C721	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C730	1-102-116-00	CERAMIC 680PF 10% 50V	
C731	1-102-116-00	CERAMIC 680PF 10% 50V	
C732	1-102-116-00	CERAMIC 680PF 10% 50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D701	8-719-911-19	DIODE 1SS119	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-911-19	DIODE 1SS119	
D710	8-719-901-83	DIODE 1SS83	
D711	8-719-901-83	DIODE 1SS83	
D712	8-719-901-83	DIODE 1SS83	
D713	8-719-901-83	DIODE 1SS83	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J701	1-540-071-11	SOCKET, PICTURE TUBE	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L701 ⚠	1-408-417-31	INDUCTOR 47UH	
L702	1-408-421-00	INDUCTOR 100UH	
L703	1-408-420-00	INDUCTOR 82UH	
L704	1-408-410-00	INDUCTOR 12UH	
L705	1-408-411-00	INDUCTOR 15UH	
L706	1-408-421-00	INDUCTOR 100UH	
L707	1-408-411-00	INDUCTOR 15UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q701	8-729-326-11	TRANSISTOR 2SC2611	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-200-17	TRANSISTOR 2SA1091	
Q704	8-729-326-11	TRANSISTOR 2SC2611	
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q706	8-729-200-17	TRANSISTOR 2SA1091	
Q707	8-729-200-17	TRANSISTOR 2SA1091	
Q708	8-729-326-11	TRANSISTOR 2SC2611	
Q709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q710	8-729-255-12	TRANSISTOR 2SC2551	
Q711	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q712	8-729-255-12	TRANSISTOR 2SC2551	
Q713	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q714	8-729-200-17	TRANSISTOR 2SA1091	
Q715	8-729-200-17	TRANSISTOR 2SA1091	
Q716	8-729-200-17	TRANSISTOR 2SA1091	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R701	1-216-392-11	METAL OXIDE 1.8 5% 3W	F
R702	1-202-848-00	SOLID 680K 10% 1/2W	
R703	1-202-815-11	SOLID 47K 10% 1/2W	
R704	1-202-846-00	SOLID 470K 10% 1/2W	
R705	1-202-549-00	SOLID 100 10% 1/2W	
R706	1-202-838-00	SOLID 100K 10% 1/2W	
R707	1-202-842-11	SOLID 220K 10% 1/2W	
R708	1-202-818-00	SOLID 1K 10% 1/2W	
R709	1-202-818-00	SOLID 1K 10% 1/2W	
R710	1-202-818-00	SOLID 1K 10% 1/2W	
R711	1-202-837-00	SOLID 82K 10% 1/2W	
R712	1-202-842-11	SOLID 220K 10% 1/2W	
R713 ⚠	1-216-486-51	METAL OXIDE 8.2K 5% 3W	F
R714	1-249-409-11	CARBON 220 5% 1/4W	
R715	1-202-818-00	SOLID 1K 10% 1/2W	
R716 ⚠	1-216-486-51	METAL OXIDE 8.2K 5% 3W	F
R717	1-249-409-11	CARBON 220 5% 1/4W	
R718	1-249-409-11	CARBON 220 5% 1/4W	
R720 ⚠	1-216-486-51	METAL OXIDE 8.2K 5% 3W	F
R721	1-202-842-11	SOLID 220K 10% 1/2W	
R723	1-249-405-11	CARBON 100 5% 1/4W	
R724	1-249-405-11	CARBON 100 5% 1/4W	
R725	1-249-429-11	CARBON 10K 5% 1/4W	

The components identified by shading and mark ⚠ are critical for safety.
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Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R726	1-249-407-11	CARBON	150	5%	1/4W	
R727	1-249-429-11	CARBON	10K	5%	1/4W	
R728	1-249-407-11	CARBON	150	5%	1/4W	
R729	1-249-405-11	CARBON	100	5%	1/4W	
R730	1-249-407-11	CARBON	150	5%	1/4W	
R731	1-247-704-11	CARBON	220	5%	1/4W	F
R732	1-247-704-11	CARBON	220	5%	1/4W	F
R733	1-247-704-11	CARBON	220	5%	1/4W	F
R739	1-249-433-11	CARBON	22K	5%	1/4W	
R740	1-215-902-11	METAL OXIDE	47K	5%	2W	F
R741	1-249-417-11	CARBON	1K	5%	1/4W	
R742	1-249-429-11	CARBON	10K	5%	1/4W	F
R743	1-249-429-11	CARBON	10K	5%	1/4W	F
R744	1-247-725-11	CARBON	10K	5%	1/4W	F
R745	1-247-713-11	CARBON	1K	5%	1/4W	F
R746	1-215-902-11	METAL OXIDE	47K	5%	1W	F
R747	1-247-725-11	CARBON	10K	5%	1/4W	F
R749	1-249-437-11	CARBON	47K	5%	1/4W	
R750	1-249-409-11	CARBON	220	5%	1/4W	
R751	1-249-397-11	CARBON	22	5%	1/4W	
R752	1-249-397-11	CARBON	22	5%	1/4W	
R753	1-249-397-11	CARBON	22	5%	1/4W	
R754	1-249-429-11	CARBON	10K	5%	1/4W	
R755	1-249-411-11	CARBON	330	5%	1/4W	
R757	1-249-425-11	CARBON	4.7K	5%	1/4W	
R777	1-249-441-11	CARBON	100K	5%	1/4W	

<VARIABLE RESISTOR>

RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M
RV702⚠	1-230-619-11	RES, ADJ, METAL GLAZE 110M

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*1-629-622-11 H2 BOARD
****

*1-564-512-11	PLUG, CONNECTOR 9P
*1-564-513-11	PLUG, CONNECTOR 10P
*4-374-987-01	GUIDE, LIGHT
*4-381-686-01	BRACKET (B), BAR, OPTICAL

<CAPACITOR>

C52	1-124-499-11	ELECT	1MF	20%	50V
C53	1-124-902-00	ELECT	0.47MF	20%	50V
C55	1-102-114-00	CERAMIC	470PF	10%	50V

<DIODE>

D51	8-719-812-41	DIODE TLR124
	*4-374-906-01	HOLDER (TV/V), LED; D51
D52	8-719-812-41	DIODE TLR124
	*4-374-906-01	HOLDER (TV/V), LED; D52
D53	8-719-812-41	DIODE TLR124
	*4-374-906-01	HOLDER (TV/V), LED; D53
D54	8-719-911-19	DIODE 1SS119

<IC>

IC51	8-741-139-80	IC BX1398

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R53	1-249-409-11	CARBON	220	5%	1/4W	
R54	1-249-437-11	CARBON	47K	5%	1/4W	

<SWITCH>

S51 ⚠	1-571-532-21	SWITCH, TACTIL (POWER)
S52	1-571-532-21	SWITCH, TACTIL
S53	1-571-532-21	SWITCH, TACTIL
S54	1-571-532-21	SWITCH, TACTIL
S55	1-571-532-21	SWITCH, TACTIL
S56	1-571-532-21	SWITCH, TACTIL
S57	1-571-532-21	SWITCH, TACTIL

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*A-1385-052-A K BOARD, COMPLETE
****

*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
*1-564-517-11	PLUG, CONNECTOR 2P
*1-564-518-11	PLUG, CONNECTOR 3P
*1-565-494-11	CONNECTOR, BOARD TO BOARD 18P
*4-341-752-01	EYELET (EY2451,EY2452,EY2453,EY2454, EY2455,EY2456,EY2457,EY2458)

<CAPACITOR>

C2451	1-124-257-00	ELECT	2.2MF	20%	50V
C2452	1-124-925-11	ELECT	2.2MF	20%	50V
C2453	1-126-096-11	ELECT	10MF	20%	35V
C2454	1-123-875-11	ELECT	10MF	20%	50V
C2456	1-136-170-00	FILM	0.27MF	5%	50V
C2457	1-124-925-11	ELECT	2.2MF	20%	50V
C2458	1-124-618-11	ELECT	2200MF	20%	35V
C2461	1-124-925-11	ELECT	2.2MF	20%	50V
C2462	1-126-233-11	ELECT	22MF	20%	25V
C2465	1-136-170-00	FILM	0.27MF	5%	50V
C2466	1-124-925-11	ELECT	2.2MF	20%	50V
C2469	1-124-925-11	ELECT	2.2MF	20%	50V
C2470	1-126-233-11	ELECT	22MF	20%	50V
C2471	1-124-499-11	ELECT	1MF	20%	50V
C2472	1-124-618-11	ELECT	2200MF	20%	35V
C2473	1-124-484-11	ELECT	220MF	20%	35V
C2474	1-124-484-11	ELECT	220MF	20%	35V
C2475	1-136-165-00	FILM	0.1MF	5%	50V
C2476	1-136-165-00	FILM	0.1MF	5%	50V
C2477	1-124-618-11	ELECT	2200MF	20%	35V
C2478	1-126-233-11	ELECT	22MF	20%	50V
C2479	1-124-499-11	ELECT	1MF	20%	50V
C2480	1-124-484-11	ELECT	220MF	20%	35V
C2481	1-124-484-11	ELECT	220MF	20%	35V
C2482	1-124-618-11	ELECT	2200MF	20%	35V
C2483	1-124-618-11	ELECT	2200MF	20%	35V
C2484	1-136-165-00	FILM	0.1MF	5%	50V
C2485	1-136-165-00	FILM	0.1MF	5%	50V
C2486	1-126-233-11	ELECT	22MF	20%	50V
C2487	1-126-233-11	ELECT	22MF	20%	50V

<DIODE>

D2451	8-719-911-19	DIODE 1SS119
D2452	8-719-911-19	DIODE 1SS119

<IC>

IC2451⚠	8-759-980-43	IC TDA2009A

K **N** **U**

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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REF.NO.	PART NO.	DESCRIPTION				REMARK
IC2452⚠	8-759-980-43	IC TDA2009A				
		<IC LINK>				
PS2401	1-532-984-11	LINK, IC				
PS2402	1-532-984-11	LINK, IC				
		<TRANSISTOR>				
Q2451	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q2452	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q2455	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q2456	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q2457	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q2458	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R2424	1-215-421-00	METAL	1K	1%	1/6W	
R2425	1-215-409-00	METAL	330	1%	1/6W	
R2426	1-215-409-00	METAL	330	1%	1/6W	
R2427	1-215-421-00	METAL	1K	1%	1/6W	
R2433	1-215-437-00	METAL	4.7K	1%	1/6W	
R2438	1-215-437-00	METAL	4.7K	1%	1/6W	
R2439	1-249-441-11	CARBON	100K	5%	1/4W	
R2440	1-249-413-11	CARBON	470	5%	1/4W	
R2441	1-249-435-11	CARBON	33K	5%	1/4W	
R2442	1-249-441-11	CARBON	100K	5%	1/4W	
R2443	1-249-413-11	CARBON	470	5%	1/4W	
R2444	1-249-430-11	CARBON	12K	5%	1/4W	
R2445	1-249-430-11	CARBON	12K	5%	1/4W	
R2446	1-249-441-11	CARBON	100K	5%	1/4W	
R2447	1-249-439-11	CARBON	68K	5%	1/4W	
R2451	1-249-441-11	CARBON	100K	5%	1/4W	
R2452	1-249-441-11	CARBON	100K	5%	1/4W	
R2453	1-249-405-11	CARBON	100	5%	1/4W	
R2454	1-215-439-00	METAL	5.6K	1%	1/6W	
R2455	1-215-427-00	METAL	1.8K	1%	1/6W	
R2456	1-249-441-11	CARBON	100K	5%	1/4W	
R2457	1-249-441-11	CARBON	100K	5%	1/4W	
R2458	1-249-405-11	CARBON	100	5%	1/4W	
R2459	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2460	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2463	1-249-435-11	CARBON	33K	5%	1/4W	
R2464	1-249-441-11	CARBON	100K	5%	1/4W	
R2465	1-215-423-00	METAL	1.2K	1%	1/6W	
R2466	1-215-417-00	METAL	680	1%	1/6W	
R2468	1-215-387-00	METAL	39	1%	1/6W	
R2469	1-215-387-00	METAL	39	1%	1/6W	
R2470⚠	1-249-385-51	CARBON	2.2	5%	1/4W	F
R2471⚠	1-249-385-51	CARBON	2.2	5%	1/4W	F
R2473	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2474	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2483	1-215-439-00	METAL	5.6K	1%	1/6W	
R2484	1-215-427-00	METAL	1.8K	1%	1/6W	
R2487	1-249-430-11	CARBON	12K	5%	1/4W	
R2488	1-249-430-11	CARBON	12K	5%	1/4W	
R2489	1-215-423-00	METAL	1.2K	1%	1/6W	
R2491	1-215-387-00	METAL	39	1%	1/6W	
R2492	1-215-417-00	METAL	680	1%	1/6W	
R2493	1-215-387-00	METAL	39	1%	1/6W	
R2494⚠	1-249-385-11	CARBON	2.2	5%	1/4W	F
R2495⚠	1-249-385-11	CARBON	2.2	5%	1/4W	F

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2497	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2498	1-249-421-11	CARBON	2.2K	5%	1/4W	

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	*1-629-620-11	N BOARD *******				
	*1-564-505-11	PLUG, CONNECTOR 2P				
		<CAPACITOR>				
C890	1-124-925-11	ELECT	2.2MF	20%	50V	
C891	1-124-925-11	ELECT	2.2MF	20%	50V	

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	*A-1394-173-A	U BOARD, COMPLETE *****************				
	*1-564-519-11	PLUG, CONNECTOR 4P				
	1-564-523-11	PLUG, CONNECTOR 8P				
	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P				
	*1-568-377-11	CONNECTOR, HINGE (TAB) 7P				
	*4-341-752-01	EYELET (EY1,EY2,EY3,EY4,EY5)				
		<CAPACITOR>				
C401	1-126-233-11	ELECT	22MF	20%	25V	
C402	1-101-004-00	CERAMIC	0.01MF		50V	
C403	1-124-499-11	ELECT	1MF	20%	50V	
C404	1-124-499-11	ELECT	1MF	20%	50V	
C405	1-126-233-11	ELECT	22MF	20%	25V	
C407	1-124-499-11	ELECT	1MF	20%	50V	
C408	1-124-499-11	ELECT	1MF	20%	50V	
C409	1-126-233-11	ELECT	22MF	20%	25V	
C410	1-123-875-11	ELECT	10MF	20%	50V	
C411	1-126-233-11	ELECT	22MF	20%	25V	
C413	1-124-499-11	ELECT	1MF	20%	50V	
C414	1-124-499-11	ELECT	1MF	20%	50V	
C415	1-126-233-11	ELECT	22MF	20%	25V	
C418	1-124-478-11	ELECT	100MF	20%	25V	
C419	1-124-478-11	ELECT	100MF	20%	25V	
C420	1-124-477-11	ELECT	47MF	20%	16V	
C421	1-126-103-11	ELECT	470MF	20%	16V	
C422	1-126-103-11	ELECT	470MF	20%	16V	
C423	1-101-004-00	CERAMIC	0.01MF		50V	
C424	1-126-233-11	ELECT	22MF	20%	25V	
C425	1-126-233-11	ELECT	22MF	20%	25V	
C426	1-124-477-11	ELECT	47MF	20%	16V	
C428	1-126-233-11	ELECT	22MF	20%	25V	
C429	1-124-589-11	ELECT	47MF	20%	16V	
C430	1-126-233-11	ELECT	22MF	20%	25V	
C431	1-124-478-11	ELECT	100MF	20%	25V	
C433	1-126-233-11	ELECT	22MF	20%	25V	
C434	1-126-233-11	ELECT	22MF	20%	25V	
C435	1-124-499-11	ELECT	1MF	20%	50V	
C436	1-124-499-11	ELECT	1MF	20%	50V	
C437	1-126-233-11	ELECT	22MF	20%	25V	
C438	1-126-233-11	ELECT	22MF	20%	25V	
C439	1-126-233-11	ELECT	22MF	20%	25V	
C440	1-124-477-11	ELECT	47MF	20%	16V	
C441	1-124-477-11	ELECT	47MF	20%	16V	
C442	1-126-233-11	ELECT	22MF	20%	25V	
C445	1-124-589-11	ELECT	47MF	20%	16V	
C462	1-124-589-11	ELECT	47MF	20%	16V	
C490	1-101-004-00	CERAMIC	0.01MF		50V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C491	1-124-477-11	ELECT	47MF	20%	16V	
C492	1-126-233-11	ELECT	22MF	20%	25V	
C493	1-124-477-11	ELECT	47MF	20%	16V	
C495	1-102-973-00	CERAMIC	100PF	5%	50V	
C1402	1-124-589-11	ELECT	47MF	20%	16V	
C1403	1-124-589-11	ELECT	47MF	20%	16V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D401	8-719-109-97	DIODE RD6.8ES-B2	
D402	8-719-109-97	DIODE RD6.8ES-B2	
D403	8-719-109-97	DIODE RD6.8ES-B2	
D408	8-719-109-97	DIODE RD6.8ES-B2	
D409	8-719-109-97	DIODE RD6.8ES-B2	
D410	8-719-109-97	DIODE RD6.8ES-B2	
D411	8-719-109-97	DIODE RD6.8ES-B2	
D415	8-719-110-17	DIODE RD10ES-B2	
D418	8-719-911-19	DIODE 1SS119	
D419	8-719-911-19	DIODE 1SS119	
D421	8-719-109-97	DIODE RD6.8ES-B2	
D422	8-719-109-97	DIODE RD6.8ES-B2	
D423	8-719-109-97	DIODE RD6.8ES-B2	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC401	8-759-710-68	IC NJM2245S	
IC402	8-759-710-68	IC NJM2245S	
IC405	8-759-710-69	IC NJM2233BS	
IC444	8-752-032-27	IC CXA1114P	
IC1401	8-759-710-69	IC NJM2233BS	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J401	1-565-931-11	TERMINAL BLOCK, S 3P	
J402	1-565-840-11	PIN JACK BLOCK 6P	
J403	1-565-931-11	TERMINAL BLOCK, S 3P	
J404	1-565-838-11	PIN JACK BLOCK 2P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L401	1-408-412-00	INDUCTOR	18UH	
L404	1-410-663-31	INDUCTOR	10UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q403	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q405	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q406	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q410	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q411	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q412	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q413	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q414	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q415	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q416	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q491	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q492	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R401	1-247-804-11	CARBON	75	5%	1/4W	
R402	1-247-804-11	CARBON	75	5%	1/4W	
R403	1-249-434-11	CARBON	27K	5%	1/4W	
R404	1-247-885-00	CARBON	180K	5%	1/4W	
R405	1-247-885-00	CARBON	180K	5%	1/4W	
R406	1-249-434-11	CARBON	27K	5%	1/4W	
R407	1-247-804-11	CARBON	75	5%	1/4W	
R409	1-249-434-11	CARBON	27K	5%	1/4W	
R410	1-247-885-00	CARBON	180K	5%	1/4W	
R411	1-247-804-11	CARBON	75	5%	1/4W	
R413	1-249-434-11	CARBON	27K	5%	1/4W	
R414	1-247-885-00	CARBON	180K	5%	1/4W	
R415	1-249-434-11	CARBON	27K	5%	1/4W	
R416	1-247-885-00	CARBON	180K	5%	1/4W	
R417	1-247-895-00	CARBON	470K	5%	1/4W	
R418	1-249-417-11	CARBON	1K	5%	1/4W	
R419	1-247-895-00	CARBON	470K	5%	1/4W	
R420	1-249-417-11	CARBON	1K	5%	1/4W	
R421	1-247-804-11	CARBON	75	5%	1/4W	
R422	1-247-895-00	CARBON	470K	5%	1/4W	
R423	1-247-895-00	CARBON	470K	5%	1/4W	
R424	1-247-895-00	CARBON	470K	5%	1/4W	
R425	1-247-895-00	CARBON	470K	5%	1/4W	
R426	1-249-424-11	CARBON	3.9K	5%	1/4W	
R427	1-247-895-00	CARBON	470K	5%	1/4W	
R428	1-249-424-11	CARBON	3.9K	5%	1/4W	
R429	1-249-434-11	CARBON	27K	5%	1/4W	
R432	1-249-405-11	CARBON	100	5%	1/4W	
R433	1-249-413-11	CARBON	470	5%	1/4W	
R434	1-249-409-11	CARBON	220	5%	1/4W	
R435	1-249-403-11	CARBON	68	5%	1/4W	
R436	1-249-425-11	CARBON	4.7K	5%	1/4W	
R437	1-247-885-00	CARBON	180K	5%	1/4W	
R438	1-249-405-11	CARBON	100	5%	1/4W	
R439	1-249-413-11	CARBON	470	5%	1/4W	
R440	1-249-417-11	CARBON	1K	5%	1/4W	
R441	1-249-409-11	CARBON	220	5%	1/4W	
R447	1-249-409-11	CARBON	220	5%	1/4W	
R448	1-249-409-11	CARBON	220	5%	1/4W	
R449	1-249-413-11	CARBON	470	5%	1/4W	
R450	1-249-409-11	CARBON	220	5%	1/4W	
R451	1-249-421-11	CARBON	2.2K	5%	1/4W	
R452	1-249-433-11	CARBON	22K	5%	1/4W	
R457	1-249-405-11	CARBON	100	5%	1/4W	
R458	1-249-405-11	CARBON	100	5%	1/4W	
R459	1-249-417-11	CARBON	1K	5%	1/4W	
R460	1-249-405-11	CARBON	100	5%	1/4W	
R461	1-249-417-11	CARBON	1K	5%	1/4W	
R462	1-249-417-11	CARBON	1K	5%	1/4W	
R463	1-249-405-11	CARBON	100	5%	1/4W	
R465	1-249-417-11	CARBON	1K	5%	1/4W	
R466	1-249-405-11	CARBON	100	5%	1/4W	
R467	1-249-405-11	CARBON	100	5%	1/4W	
R468	1-249-433-11	CARBON	22K	5%	1/4W	
R469	1-249-433-11	CARBON	22K	5%	1/4W	
R470	1-249-403-11	CARBON	68	5%	1/4W	
R471	1-249-403-11	CARBON	68	5%	1/4W	
R472	1-249-403-11	CARBON	68	5%	1/4W	
R474	1-249-405-11	CARBON	100	5%	1/4W	
R475	1-249-417-11	CARBON	1K	5%	1/4W	
R476	1-249-433-11	CARBON	22K	5%	1/4W	

U **Fo**

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R479	1-249-433-11	CARBON	22K	5%	1/4W	
R480	1-249-433-11	CARBON	22K	5%	1/4W	
R481	1-249-433-11	CARBON	22K	5%	1/4W	
R483	1-249-417-11	CARBON	1K	5%	1/4W	
R484	1-215-455-00	METAL	27K	1%	1/6W	
R485	1-215-475-00	METAL	180K	1%	1/6W	
R486	1-215-455-00	METAL	27K	1%	1/6W	
R487	1-215-475-00	METAL	180K	1%	1/6W	
R488	1-249-433-11	CARBON	22K	5%	1/4W	
R489	1-249-433-11	CARBON	22K	5%	1/4W	
R490	1-249-417-11	CARBON	1K	5%	1/4W	
R491	1-249-417-11	CARBON	1K	5%	1/4W	
R492	1-249-417-11	CARBON	1K	5%	1/4W	
R493	1-249-431-11	CARBON	15K	5%	1/4W	
R494	1-249-429-11	CARBON	10K	5%	1/4W	
R495	1-249-417-11	CARBON	1K	5%	1/4W	
R496	1-249-425-11	CARBON	4.7K	5%	1/4W	
R497	1-249-417-11	CARBON	1K	5%	1/4W	
R498	1-249-417-11	CARBON	1K	5%	1/4W	
R1401	1-249-405-11	CARBON	100	5%	1/4W	
R1402	1-249-405-11	CARBON	100	5%	1/4W	
R1403	1-249-417-11	CARBON	1K	5%	1/4W	
R1420	1-249-413-11	CARBON	470	5%	1/4W	
R1421	1-249-413-11	CARBON	470	5%	1/4W	
R1422	1-249-405-11	CARBON	100	5%	1/4W	
R1423	1-249-441-11	CARBON	100K	5%	1/4W	
R1424	1-249-429-11	CARBON	10K	5%	1/4W	
R1425	1-249-429-11	CARBON	10K	5%	1/4W	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
S401	1-571-729-11	SWITCH, SLIDE
S402	1-554-303-21	SWITCH, KEY BOARD

****

*1-629-628-11 FO BOARD
****

****

MISCELLANEOUS
****

REF.NO.	PART NO.	DESCRIPTION
	⚠1-417-177-11	SELECTOR, ANTENNA (AS-1)
	⚠1-426-350-21	COIL, DEMAGNETIZATION
	⚠1-451-275-11	DEFLECTION YOKE (Y28PFA)
	1-452-032-00	MAGNET,DISK; 10MM ϕ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ
	1-503-917-11	SPEAKER
	1-544-095-11	SPEAKER
	*1-556-945-21	CABLE, P-P
	⚠1-559-396-11	CORD, POWER
	*1-568-507-11	CONNECTOR, BRIDGE 15P
	8-741-159-30	IC SBX1593-01
V901	⚠8-737-753-05	PICTURE TUBE (A68JMT50X)

****

ACCESSORIES AND PACKING MATERIALS
****

PART NO.	DESCRIPTION	REMARK
1-465-170-11	REMOTE COMMANDER (RM-763)	
1-562-443-11	CONNECTOR, ANTENNA	
3-750-053-21	MANUAL, INSTRUCTION	
3-750-053-31	MANUAL, INSTRUCTION (CND ONLY)	
*4-384-027-01	BAG, PROTECTION	
*4-393-649-01	CUSHION (UPPER) (ASSY)	
*4-393-650-01	CUSHION (LOWER) (ASSY)	
*4-393-651-01	INDIVIDUAL CARTON	

Sony Corporation
TV Group

English
89ER055-1
Printed in Japan

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KV-27HSR10
RM-763

SONY®
SERVICE MANUAL

US Model
Chassis No. SCC-C59C-A
Canadian Model
Chassis No. SCC-C60C-A

SUPPLEMENT-1

File this supplement with the Service Manual.

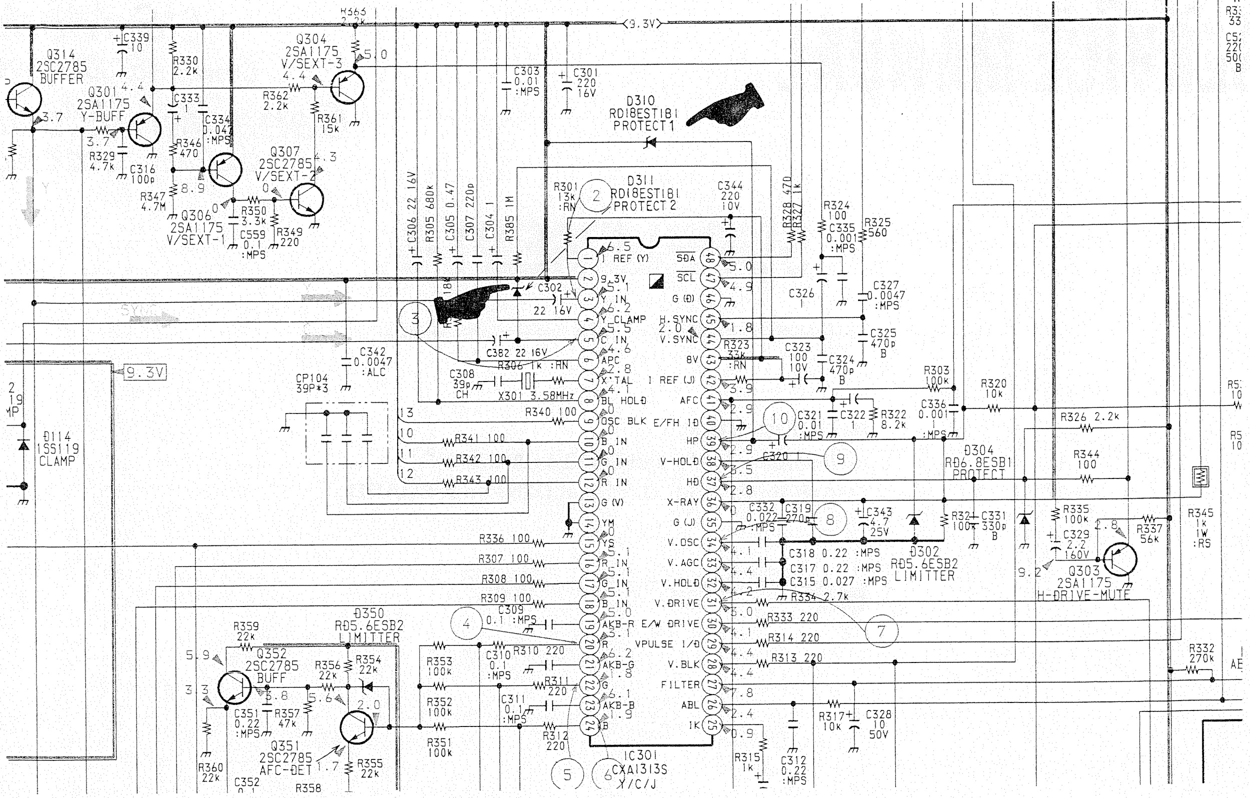
INTRODUCTION
Addition: D311 and D312 on A BOARD
Addition: D251, D252 and D253 on X BOARD

☛ : **Indicates modified portion**

MICROFILM

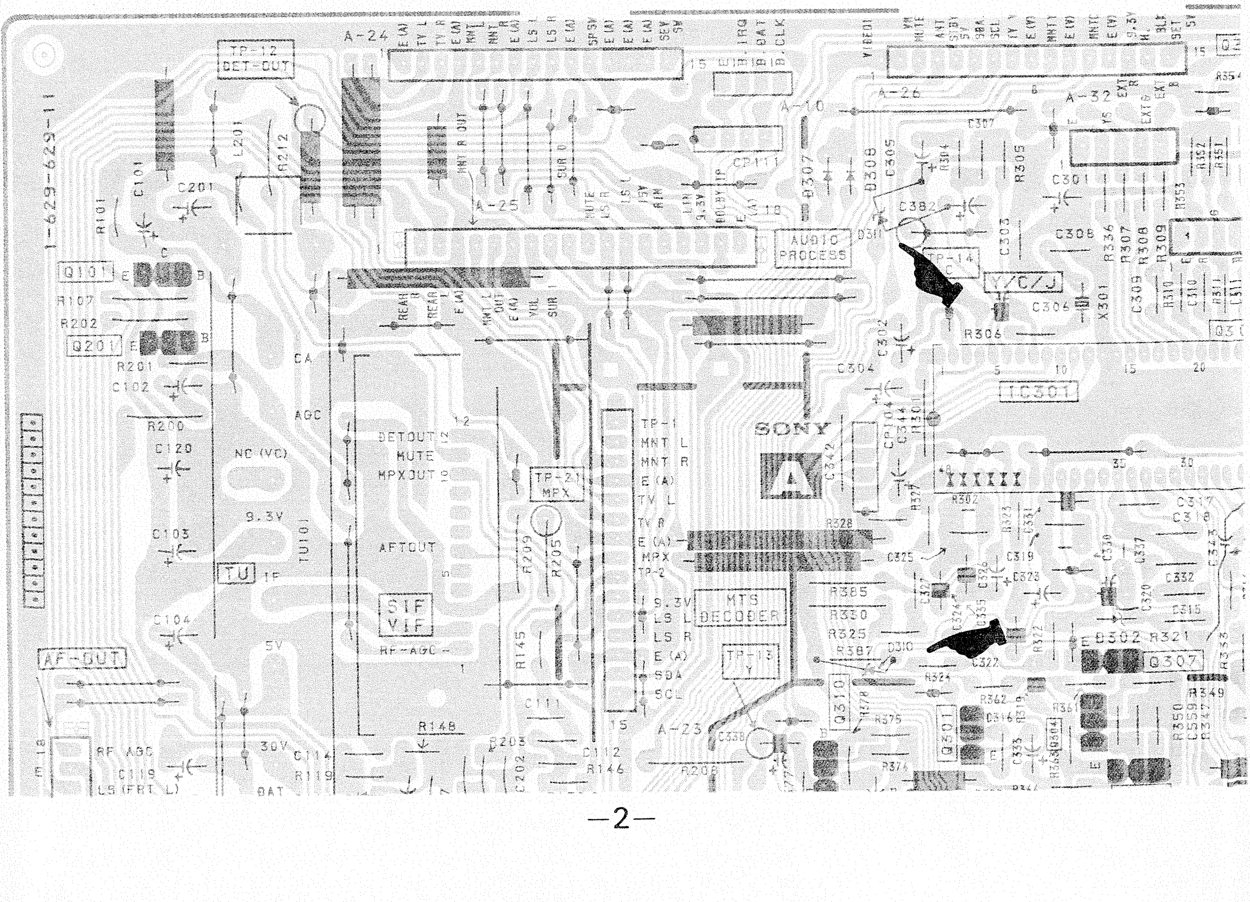
6-4. SCHEMATIC DIAGRAMS: PAGE 34 – 35

A BOARD

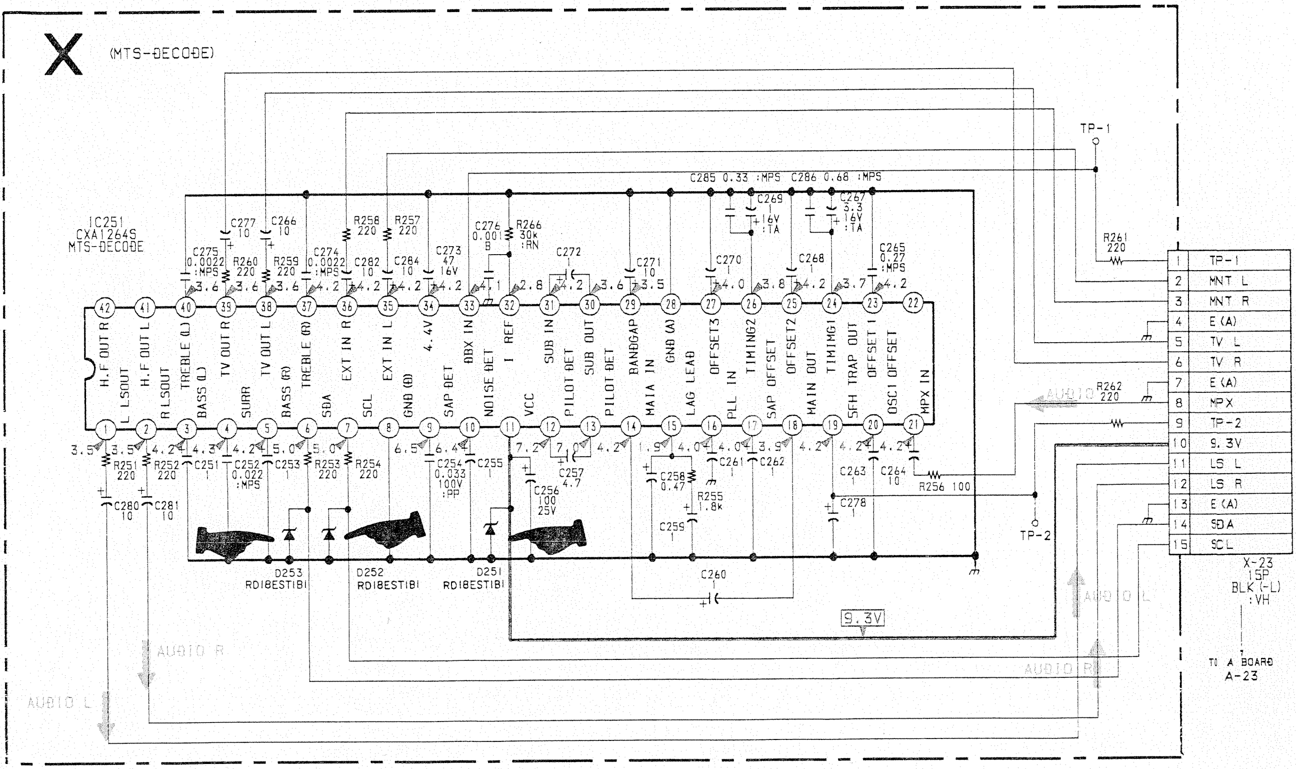

9.3V
Q314 2SC2785 BUFFER
Q301 2SA1175 Y-BUFF
Q304 2SA1175 V/SEXT-3
Q307 2SC2785 V/SEXT-2
Q306 2SA1175 V/SEXT-1
D310 RD18ESTB1 PROTECT1
D311 RD18ESTB1 PROTECT 2
C301 220 16V
C303 0.01 :MPS
C344 220 10V
X301 3.58MHz
CP104 39P×3
C342 0.0047 :ALC
D114 1SS119 CLAMP
D304 RD6.8ESB1 PROTECT
D302 RD5.6ESB2 LIMITTER
Q303 2SA1175 H-DRIVE-MUTE
D350 RD5.6ESB2 LIMITTER
Q352 2SC2785 BUFF
Q351 2SC2785 AFC-DET
IC301 CXA1313S Y/C/J
REF (Y)
Y IN
Y CLAMP
C IN
APC
X'TAL
BL HOLD
OSC BLK
B IN
G IN
R IN
G (V)
YM
YS
R IN
G IN
B IN
AKB-R
R
AKB-G
G
AKB-B
B
SDA
SCL
G (D)
H.SYNC
V.SYNC
BV
I REF (J)
AFC
E/FH ID
HP
V-HOLD
HD
X-RAY
G (J)
V.OSC
V.AGC
V.HOLD
V.DRIVE
E/W DRIVE
VPULSE I/D
V.BLK
FILTER
ABL
IK

6-3. PRINTED WIRING BOARDS: PAGE 31

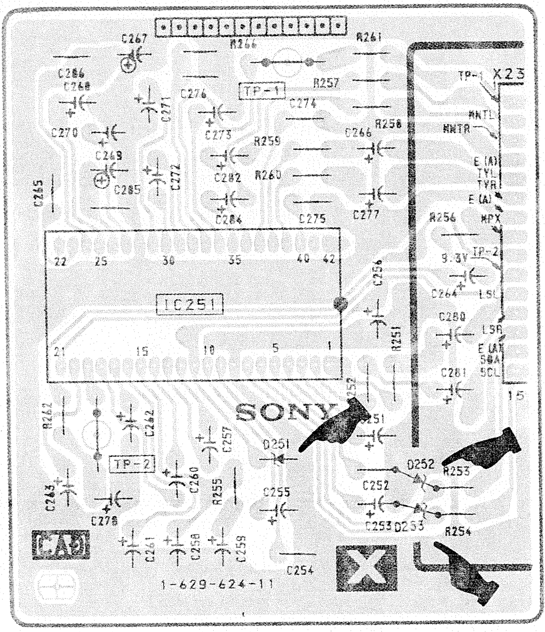
A BOARD


1-629-629-11
A-24
TP-12 DET-OUT
Q101
Q201
AUDIO PROCESS
TP-14
Y/C/J
IC301
SONY
A
TP-21 MPX
DETOUT
MUTE
MPXOUT
AFTOUT
STF VIF
RF-AGC
TU
AF-OUT
MTS DECODER
TP-13 Y
NC (VC)
9.3V
5V
30V
AGC
Q307
Q301
Q310
D302
D310

6-4. SCHEMATIC DIAGRAMS: PAGE 38 – 39
X BOARD


X
(MTS-DECODE)
IC251
CXA1264S
MTS-DECODE
TP-1
TP-2
R261 220
R262 220
R256 100
D253 RD18ESTIB1
D252 RD18ESTIB1
D251 RD18ESTIB1
9.3V
AUDIO R
AUDIO L
1 TP-1
2 MNT L
3 MNT R
4 E (A)
5 TV L
6 TV R
7 E (A)
8 MPX
9 TP-2
10 9.3V
11 LS L
12 LS R
13 E (A)
14 SDA
15 SCL
X-23
15P
BLK (-L)
:VH
TO A BOARD
A-23

6-3. PRINTED WIRING BOARDS: PAGE 44
X BOARD


IC251
X23
TP-1
TP-2
SONY
X
1-629-624-11

KV-27HSR10
RM-763

SONY
SERVICE MANUAL

US Model
Chassis No.SCC-C59C-A

Canadian Model
Chassis No.SCC-C60C-A

SUPPLEMENT-2

File this supplement with the service manual.

☛ : Indicates added portion

INTRODUCTION
1. Added : X1 board.

SECTION 8 ELECTRICAL PARTS LIST

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*1-635-250-11	X1 BOARD ********				
	*1-568-380-21	PIN, CONNECTOR 15P				
		<CAPACITOR>				
C251	1-124-791-11	ELECT	1MF	20%	50V	
C252	1-136-157-00	FILM	0.022MF	5%	50V	
C253	1-124-791-11	ELECT	1MF	20%	50V	
C254	1-130-309-00	FILM	0.033MF	5%	100V	
C255	1-124-791-11	ELECT	1MF	20%	50V	
C256	1-124-478-11	ELECT	100MF	20%	25V	
C257	1-124-927-11	ELECT	4.7MF	20%	50V	
C258	1-124-902-00	ELECT	0.47MF	20%	50V	
C259	1-124-791-11	ELECT	1MF	20%	50V	
C260	1-124-791-11	ELECT	1MF	20%	50V	
C261	1-131-347-00	TANTALUM	1MF	20%	16V	
C262	1-124-791-11	ELECT	1MF	20%	50V	
C263	1-124-791-11	ELECT	1MF	20%	50V	
C264	1-123-875-11	ELECT	10MF	20%	50V	
C265	1-136-170-00	FILM	0.27MF	5%	50V	
C266	1-123-875-11	ELECT	10MF	20%	50V	
C267	1-131-368-00	TANTALUM	3.3MF	10%	16V	
C268	1-124-791-11	ELECT	1MF	20%	50V	
C269	1-131-347-00	TANTALUM	1MF	20%	16V	
C270	1-124-791-11	ELECT	1MF	20%	50V	
C271	1-123-875-11	ELECT	10MF	20%	50V	
C272	1-124-791-11	ELECT	1MF	20%	50V	
C273	1-124-477-11	ELECT	47MF	20%	16V	
C274	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C275	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C276	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C277	1-123-875-11	ELECT	10MF	20%	50V	
C278	1-124-791-11	ELECT	1MF	20%	50V	
C280	1-123-875-11	ELECT	10MF	20%	50V	
C281	1-123-875-11	ELECT	10MF	20%	50V	
C282	1-124-927-11	ELECT	4.7MF	20%	50V	
C284	1-124-927-11	ELECT	4.7MF	20%	50V	
C285	1-136-171-00	FILM	0.33MF	5%	50V	
C286	1-136-175-00	FILM	0.68MF	5%	50V	
C290	1-123-875-11	ELECT	10MF	20%	50V	
C291	1-123-875-11	ELECT	10MF	20%	50V	
C292	1-123-875-11	ELECT	10MF	20%	50V	
C293	1-126-233-11	ELECT	22MF	20%	50V	
C294	1-123-875-11	ELECT	10MF	20%	50V	
		<DIODE>				
D251	8-719-110-48	DIODE RD18ES-B1				
D252	8-719-110-48	DIODE RD18ES-B1				
D253	8-719-110-48	DIODE RD18ES-B1				
D270	8-719-109-90	DIODE RD5.6ES-B3				
D271	8-719-911-19	DIODE 1SS119				

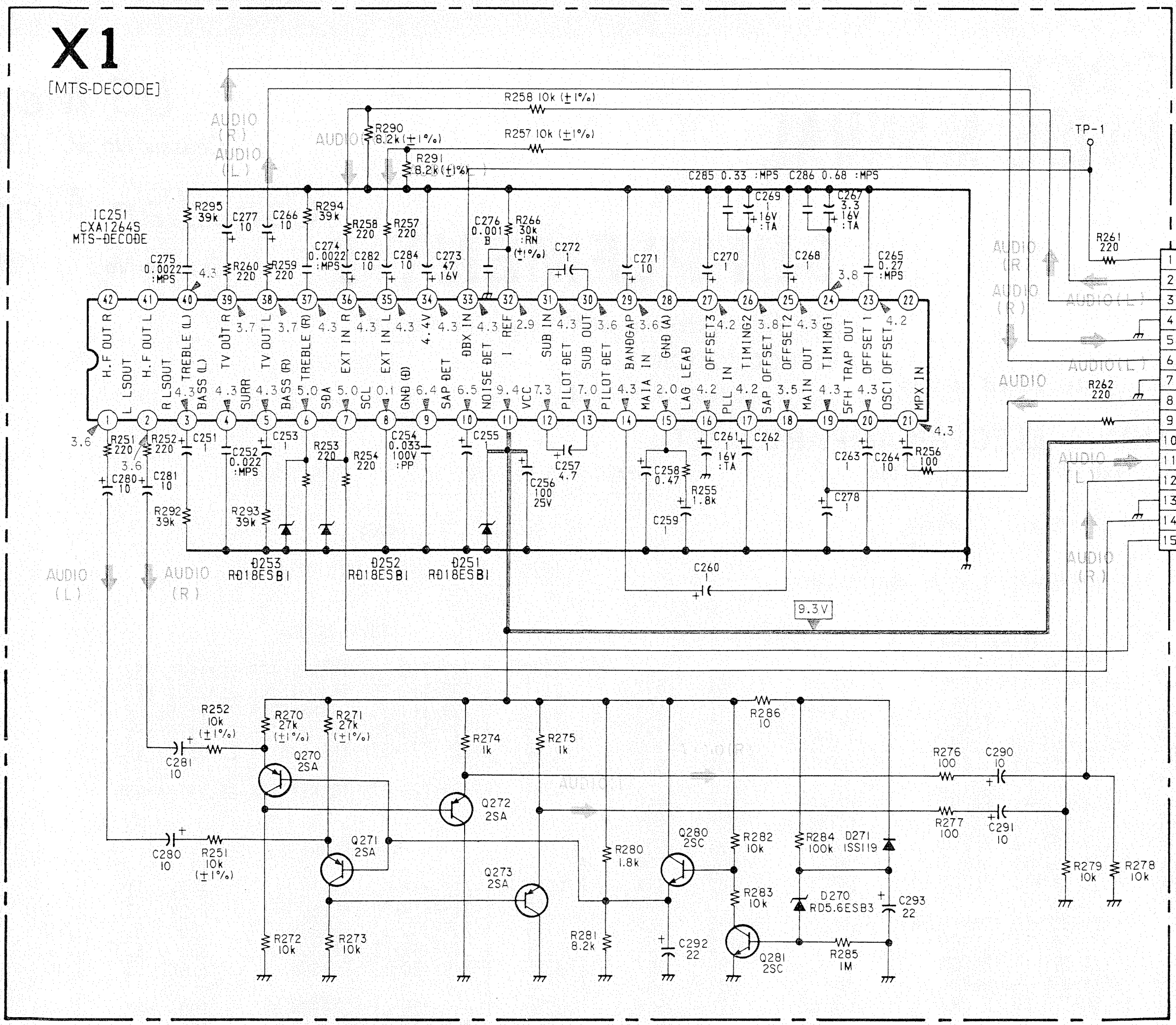
MICROFILM

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<IC>				
IC251	8-752-035-54	IC CXA1264S				
		<TRANSISTOR>				
Q270	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q271	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q272	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q273	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q280	8-729-423-37	TRANSISTOR 2SC3311A-QRS				
Q281	8-729-423-37	TRANSISTOR 2SC3311A-QRS				
		<RESISTOR>				
R251	1-215-443-00	METAL	8.2K	1%	1/6W	
R252	1-215-443-00	METAL	8.2K	1%	1/6W	
R253	1-249-409-11	CARBON	220	5%	1/4W	
R254	1-249-409-11	CARBON	220	5%	1/4W	
R255	1-249-420-11	CARBON	1.8K	5%	1/4W	
R256	1-249-405-11	CARBON	100	5%	1/4W	
R257	1-215-445-00	METAL	10K	1%	1/6W	
R258	1-215-445-00	METAL	10K	1%	1/6W	
R259	1-249-409-11	CARBON	220	5%	1/4W	
R260	1-249-409-11	CARBON	220	5%	1/4W	
R261	1-249-409-11	CARBON	220	5%	1/4W	
R262	1-249-409-11	CARBON	220	5%	1/4W	
R266	1-215-456-00	METAL	30K	1%	1/6W	
R270	1-249-428-11	CARBON	8.2K	5%	1/4W	
R271	1-249-428-11	CARBON	8.2K	5%	1/4W	
R272	1-215-455-00	METAL	27K	1%	1/6W	
R273	1-215-455-00	METAL	27K	1%	1/6W	
R274	1-249-417-11	CARBON	1K	5%	1/4W	
R275	1-249-417-11	CARBON	1K	5%	1/4W	
R276	1-249-405-11	CARBON	100	5%	1/4W	
R277	1-249-405-11	CARBON	100	5%	1/4W	
R278	1-249-429-11	CARBON	10K	5%	1/4W	
R279	1-249-429-11	CARBON	10K	5%	1/4W	
R280	1-249-420-11	CARBON	1.8K	5%	1/4W	
R281	1-249-428-11	CARBON	8.2K	5%	1/4W	
R282	1-249-429-11	CARBON	10K	5%	1/4W	
R283	1-249-429-11	CARBON	10K	5%	1/4W	
R284	1-249-441-11	CARBON	100K	5%	1/4W	
R285	1-247-903-00	CARBON	1M	5%	1/4W	
R286	1-249-393-11	CARBON	10	5%	1/4W	
R290	1-215-441-00	METAL	6.8K	1%	1/6W	
R291	1-215-441-00	METAL	6.8K	1%	1/6W	
R292	1-249-433-11	CARBON	22K	5%	1/4W	
R293	1-249-433-11	CARBON	22K	5%	1/4W	
R294	1-249-433-11	CARBON	22K	5%	1/4W	
R295	1-249-433-11	CARBON	22K	5%	1/4W	

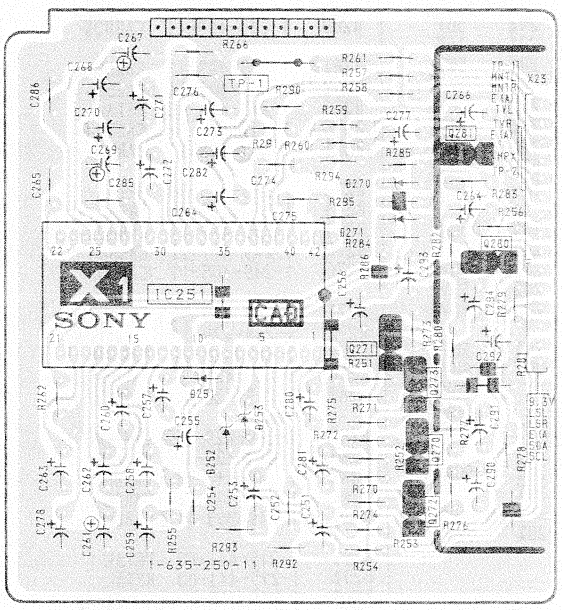
SECTION 6 DIAGRAMS

6-2.SCHEMATIC DIAGRAMS AND PRINTED WIRNING

X1 BOARD


X1
[MTS-DECODE]
IC251
CXA1264S
MTS-DECODE
H.F OUT R
H.F OUT L
L LSOUT
R LSOUT
TREBLE (L)
BASS (L)
TV OUT R
SURR
TV OUT L
BASS (R)
TREBLE (R)
SDA
EXT IN R
SCL
EXT IN L
GND (D)
SAP DET
DBX IN
NOISE DET
I REF
VCC
SUB IN
PILOT DET
SUB OUT
PILOT DET
BANDGAP
MAIN IN
GND (A)
LAG LEAD
OFFSET3
PLL IN
TIMING2
SAP OFFSET
OFFSET2
MAIN OUT
TIMING1
SFH TRAP OUT
OFFSET 1
OSC1 OFFSET
MPX IN
R258 10k (±1%)
R257 10k (±1%)
R290 8.2k (±1%)
R291 8.2k (±1%)
TP-1
C285 0.33 :MPS
C286 0.68 :MPS
C267 3.3 16V :TA
C269 1 16V :TA
C265 0.27 :MPS
R261 220
R262 220
AUDIO (R)
AUDIO (L)
AUDIO
1 TP-1
2 MNT L
3 MNT R
4 E (A)
5 TV L
6 TV R
7 E (A)
8 MPX
9 TP-2
10 9.3V
11 LS L
12 LS R
13 E (A)
14 SDA
15 SCL
X-23
15P
BLK (-L)
:VH
TO A BOARD
A-23
9.3V
D253 RD18ESB1
D252 RD18ESB1
D251 RD18ESB1
Q270 2SA
Q271 2SA
Q272 2SA
Q273 2SA
Q280 2SC
Q281 2SC
D271 1SS119
D270 RD5.6ESB3
R286 10
R276 100
R277 100
C290 10
C291 10
R279 10k
R278 10k
R252 10k (±1%)
R251 10k (±1%)
R270 27k (±1%)
R271 27k (±1%)
R272 10k
R273 10k
R274 1k
R275 1k
R280 1.8k
R281 8.2k
R282 10k
R283 10k
R284 100k
R285 1M
C292 22
C293 22
C280 10
C281 10

–X1 Board–


X1
IC251
SONY
1-635-250-11
TP-1
X23

Sony Corporation
TV Group

English
90HE025-1
Printed in Japan
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